BASKETRY

WEAVING AND DESIGN

MRS. EDWIN LANG

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BASKETRY

WEAVING AND DESIGN

FIG. 33. TORCHÈRE, FERN BASKET, BEAD VASE, WALL BASKET.

BASKETRY

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BY

MRS. EDWIN LANG

CHARLES SCRIBNER'S SONS
NEW YORK · LONDON
1925

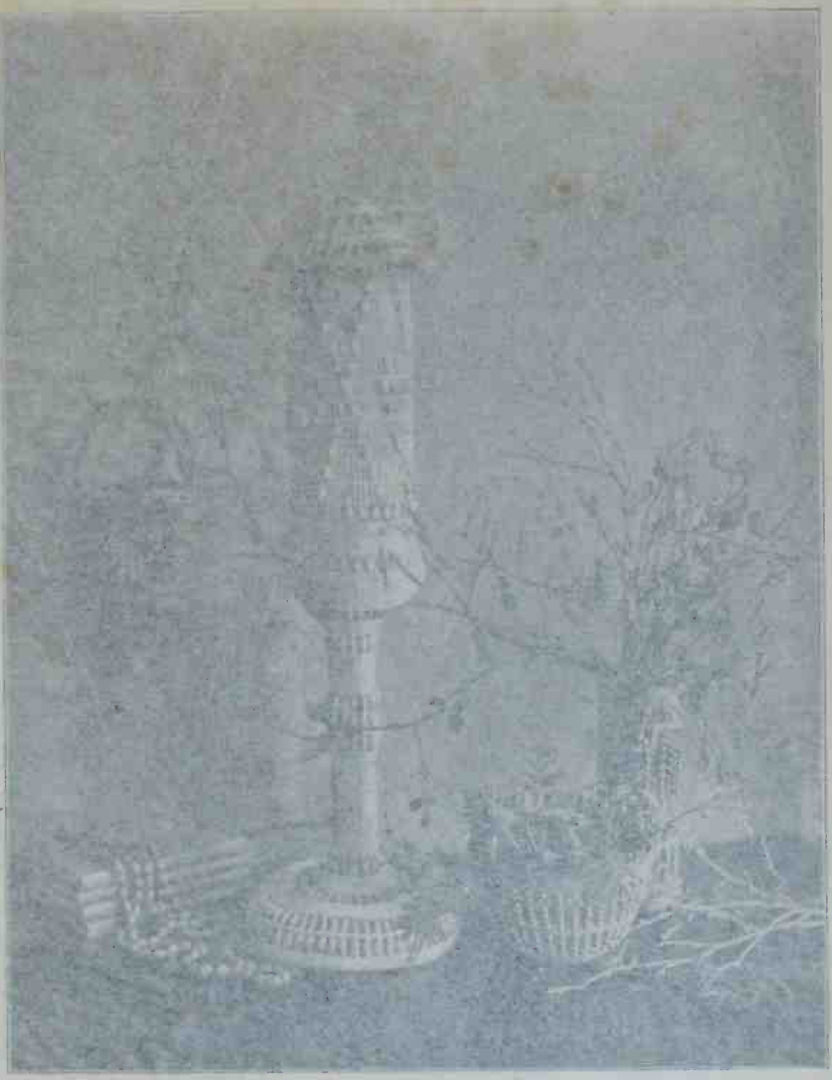

FIG. 23. TORCHERE, FERN BASKET, BEAD VASE, WALL BASKET.

BASKETRY

WEAVING AND DESIGN

REED WEAVING

THE USE OF WOOD BEADS WITH REEDS

REED AND RAFFIA BASKETRY

PINE-NEEDLE BASKETRY

BY

MRS. EDWIN LANG

CHARLES SCRIBNER'S SONS

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1925

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S.263

TO MY MOTHER

MRS. M. J. McAFEE

WHOSE WORK IN PINE-NEEDLE BASKETRY
HAS DONE SO MUCH TO DEVELOP SKILL IN ITS EXECUTION
AND TO FOSTER APPRECIATION OF THIS
BEAUTIFUL CRAFT

1897

PREFACE

IT is not the object of this book to touch upon the history of basketry, nor to give a description of the materials used; these subjects have been well covered by many writers.

Neither is it intended to present many of the elementary steps in reed weaving. Enough of the fundamental structures are given, however, to enable one to make any of the baskets or other articles shown as models.

The book is in no respect a series of lessons; it is for basket lovers and is intended as suggestive work.

The development of skill in making the baskets, lamps, and trays shown, and the exercise of a fair degree of imagination, will enable one to create many useful and beautiful objects for the home.

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BASKETRY

WEAVING AND DESIGN

CHAPTER I

REED WEAVING — GENERAL DIRECTIONS

MANUFACTURERS sell two or three grades of basketry reeds. It pays in the end to buy the best quality. It is also time well spent to select the best reeds for special work. For instance, some reeds are very white and smooth; select these for work that is to be given a thin coat of shellac, or to be dyed a very light color. Some reeds are very hard, and for this reason are better for spokes than for weavers. For work that is to be painted the dark reeds will be satisfactory. By careful selection no reeds are wasted.

The round reeds come from the manufacturer in sizes from No. 00 to 15, the former being the smallest size. Flat reeds and cane binding come in several widths.

Reed in all sizes can be procured from the following addresses:

The American Rattan & Reed Manufacturing Company, Norman and Kingsland Avenues, Brooklyn, N. Y.

The New England Reed Company, 9 to 17 Green Street, Boston, Mass.

Louis Stoughton Drake, Inc., West Newton, Mass.

J. L. Hammett Company, 250 Devonshire Street, Boston, Mass.

Milton Bradley Company, 32 South Forsyth Street, Atlanta, Ga., New York, San Francisco.

A few general directions about the handling of materials will be given here, and will not be referred to again in the technic of reed weaving.

All reeds must be made pliable by soaking in water a few minutes before using. Soaking the reeds in hot water has a tendency to make them rough and to loosen the fibres more than cold water. However, in the case of large reeds, it is sometimes advisable to use hot water.

Remember that soaking the reeds a long time darkens them as well as loosens the fibres, thereby making them rough. For this reason put only a few weavers to soak at a time. In the use of Nos. 00 to 3 it is seldom necessary to soak the reeds longer than five minutes. The larger numbers require a longer time, ten to fifteen minutes for Nos. 4 to 6, and longer for the large reeds used for handles.

When beginning a basket cut the spokes the required length and place in water until pliable. In using Nos. 4, 5, and 6 for spokes the time of soaking depends upon the type of basket. In those in which the spokes turn up at a sharp angle from the bottom

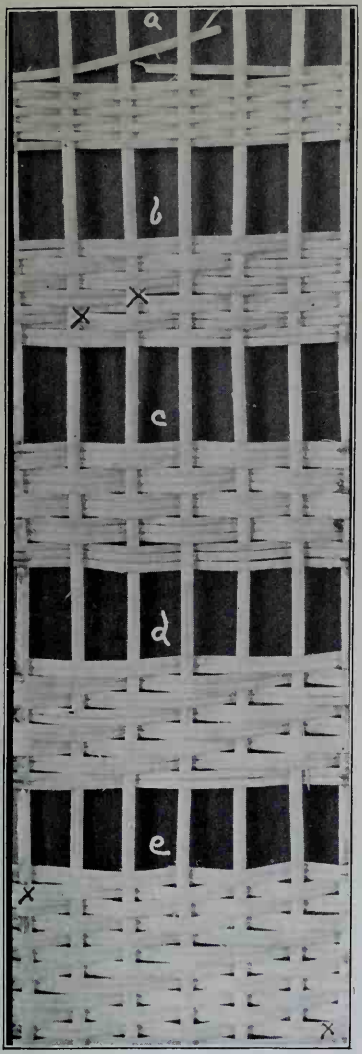


FIG. 1. SINGLE WEAVE.

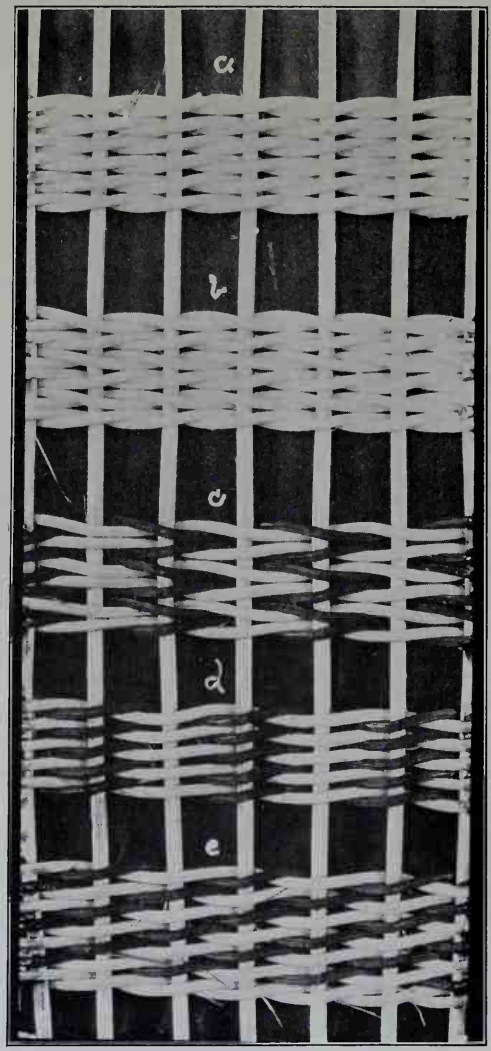


FIG. 2. PAIRING WEAVE.

it is necessary to have the reeds very pliable or they will split in bending.

In using Nos. 00, 0, and 1 for weavers it is easy to dip the hand in water occasionally and wet the reeds. They seldom need anything more than this in the course of making a basket.

In making handles it is necessary to keep the winding reeds very pliable all the time.

In winding off the spokes at the top of a basket it is necessary to have them pliable, but always avoid wetting the basket, if possible, for the reason given that too much soaking makes the reeds rough. The spokes may be dipped in water, or in the case of large reeds hot water may be poured over them without wetting the basket.

In baskets in which the bottom is a solid or close weave, like those started with centre No. 1, the bottom should be curved in like a saucer. If the bottom is left flat the basket will not set well, will be unsteady, and always unsatisfactory. This is to be remembered, as it will not be referred to in the technic of any basket.

Few tools are necessary in making the baskets shown in this book. A strong pair of scissors, a knife, an ordinary awl, and a tape-measure are all that will be required.

"Weavers" are the reeds woven over and under the spokes. As a general rule the weavers are smaller than the spokes; there are exceptions in some designs

where small reeds are used for both spokes and weavers.

"Winders," or "winding reeds," are the reeds wound around the large reeds in making the handles.

Definitions.—Some basket-makers make a distinction between "spokes" and "stakes," calling those on which the bottom is woven "spokes," and those that turn up to make the sides of the basket "stakes." In this book the weaving foundation, from the very centre of the basket to the finished edge, will be called "spokes."

In the selection of the baskets shown an effort has been made to keep as far away as possible from the many commercial types and the designs shown in other books on basketry. A few simple rules and practice will enable the basket-maker to lay the foundation for good work; originality of design will follow.

CHAPTER II

WEAVES

THE illustrations of this chapter show the technic of the weaves generally used in reed, willow, and fibre basketry and furniture.

Single Weave. — Fig. 1, *a*, shows the simplest form of weaving, the single, or over-and-under, where a single weaver is passed in and out between the spokes. In using an odd number of spokes single weave is continued regularly, round after round. When an even number of spokes is used the weaver is passed behind two spokes when beginning another round.

A variation of the single weave, with an even number of spokes, is shown at *b*, where one weaver is carried around twice in the same place; then the course is changed by passing the weaver behind two spokes, as shown at *x*, *x*. As many rows as desired may be woven before changing the course. Three rows are shown at *c*. Two or more weavers may be carried together as one, but the result in changing courses is not as satisfactory as when one weaver is carried.

Another variation of the single weave is shown at *d*, where two weavers, carried together as one, are passed over two spokes and under one spoke. In this

it is necessary to have a number of spokes not divisible by three. This must be kept in mind, and planned either at the beginning of the basket or at a place where an extra spoke may be inserted if necessary. Two, three, or more weavers may be carried at the same time.

A further variation of the single weave is shown at *e*, where two weavers are passed over 2 spokes, under 1, over 1, under 1, over 1, under 1, then over 2 again. This gives 7 spokes to the repeat, as shown at *e*, *x*, *x*. In this as in *d* two or more weavers may be carried as one. This weave, in many variations, has been used in Oriental basketry, in weaving mattings, straw or fibre slippers, etc.

Pairing Weave. — Fig. 2 shows pairing weave and some of its variations. At *a* is shown a section of pairing weave in one color, and where either an even or an odd number of spokes may be used. To begin pairing, insert two weavers behind two consecutive spokes. The left weaver is passed over the right weaver, carried behind the next spoke and out. The right weaver then becomes the left, and follows the same course, each weaver in turn passing over the next to the right, behind the next spoke, and out.

To reverse pairing weave, as shown at *b*, pass the weavers under instead of over each other every alternate row.

At *c* is shown the use of one light and one dark

FIG. 3. TRIPLE WEAVE.

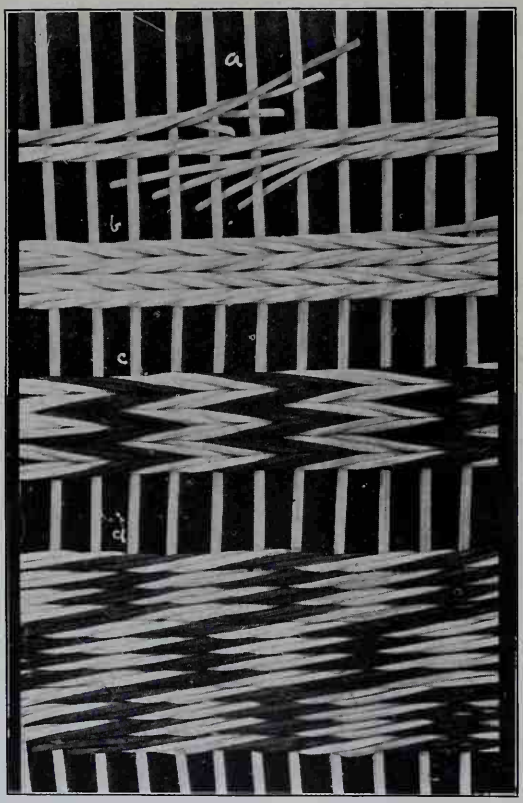


FIG. 4. QUADRUPLE WEAVE.

weaver, when an even number of spokes is used, and when alternate rows are reversed. At *d* are shown one light and one dark weaver and an even number of spokes, the weaving being continued the same row after row.

The spiral effect shown at *e* is when there is an odd number of spokes with one light and one dark weaver, and the weaving continued the same, row after row.

Triple Weave. — Fig. 3 shows triple weave and some of the variations possible in the use of color. At *a* is shown triple weave in one color, and where either an even or an odd number of spokes may be used. To begin, insert three weavers behind three consecutive spokes. Number the weavers, from left to right, 1, 2, 3. Begin with No. 1, pass it over 2 and 3 in front of two spokes, behind one spoke, and out between the next pair of spokes to the right of No. 3. No. 2 weaver now becomes No. 1, and follows the same course. Each weaver in turn passes over the two weavers, goes behind the next spoke and out.

To reverse triple weave the weavers are carried under instead of over. No. 1 is passed under 2 and 3 in front of two spokes, behind one spoke, and out between the next pair of spokes to the right of No. 3. At *b* are shown two rows of triple; the top row is reversed.

A decorative effect in reversing triple weave is

shown at *c*, when one dark and two light weavers are used, and the number of spokes is evenly divisible by the number of weavers (3). This gives vertical stripes. The proportion of light and dark may be varied by using one light and two dark, or another effect may be obtained by using three tones of the same color.

The vertical stripes shown at *d*, where the relation of spokes and weavers is the same as at *c*, are further varied at *e*. Three rows are woven with one dark and two light weavers. The dark weaver and the left light weaver are cut out and one put in the place of the other. The weaving is continued for three more rows and the weavers again cut, and so continued as the design requires.

At *f* is shown the effect when the number of spokes is divisible by the number of weavers (3) with a remainder of one.

At *g* is shown the effect when the number of spokes is divisible by the number of weavers (3) with a remainder of two.

Quadruple Weave. — Fig. 4 shows at *a* the beginning and the ending of quadruple weave. Four weavers are inserted behind four consecutive spokes, and follow the same course as in triple weave, with the exception that the weavers, in turn, pass over three weavers in front of three spokes, behind one spoke and out. In using one color either an even or an odd number of spokes may be used.

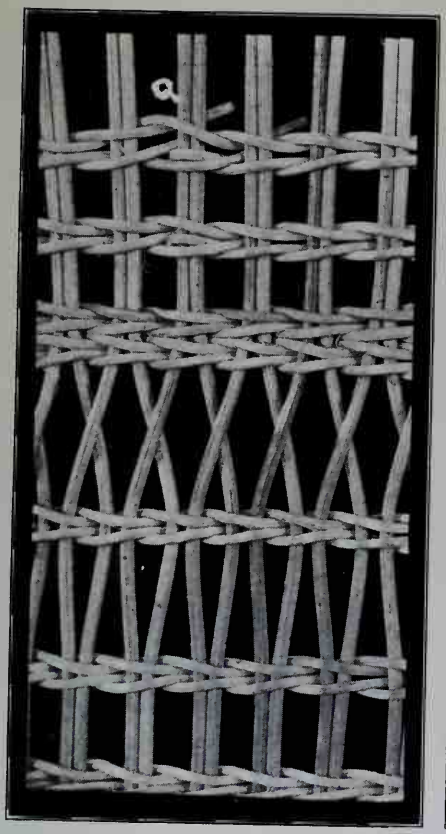


FIG. 5. OPEN WEAVES.

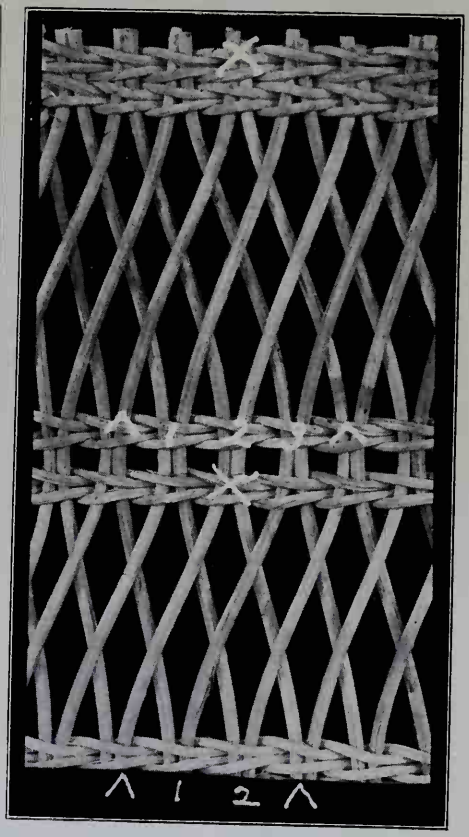


FIG. 6. OPEN WEAVES.

Quadruple is reversed the same as triple weave, the weavers being passed under instead of over the weavers. At *b* are shown four rows of quadruple with alternate rows reversed.

At *c* is shown the use of colors in quadruple weave when the number of spokes is divisible by the number of weavers (4) without a remainder. Two light and two dark weavers are used, and alternate rows are reversed.

At *d* is shown a variation of quadruple weave with the same ratio of spokes to weavers as above at *c*, and with two dark and two light weavers. Four rows are woven, then the light and dark weavers are cut and exchange places with each other; another four rows are woven, and so continued as the design requires. Many other variations of this are possible. A very interesting effect is achieved when four tones of a color are used in the weavers, the tones ranging from light to dark. This is especially effective when the weave is reversed, as shown at *c*.

Open Weaves. — Open weaves are very effective in certain kinds of baskets. When the spacings are well planned and the proportion of open and solid weaving is well balanced, the result is usually interesting. Fig. 5 shows some of the simplest open weaves. Pairing weave is shown in the models for the reason that two rows of pairing, with one of them reversed, is the most effective way of binding and holding in place the

spokes of open weave when only two rows of weaving are used. Any of the other weaves may be used, especially where several rows of solid weave are required. At *a* is seen the method of finishing two rows of pairing weave when the second row is reversed, and below *a* is shown the weaving closed; the ends are cut on the inside close to the weaving.

Fig. 6 shows two spacings of the same open weave. The right spokes of the pairs are carried to the right over the left spokes, which are carried to the left. The right spoke of one pair and the left spoke of another pair are brought together at *x*. The number of pairs of spokes between the "right spoke" and the "left spoke," mentioned above, may be as many as the design requires. Fig. 7 shows four pairs of spokes between. This gives four crossings of the spokes in the open space.

Fig. 8 shows another type of open weave which is often used in Oriental basketry. This cannot be used with round weaves. The model shows narrow cane binding. Begin at *a* with the weaver marked 1, carry it around the spoke, then diagonally down to the next spoke, wind it around this spoke from front to back, and bring out above itself on the spoke. This completes one movement with 1. Begin with 2, carry it diagonally up and over 1, to the next spoke. Carry it from right to left around the spoke, bringing it to position 1, as at the beginning. Repeat from 1.

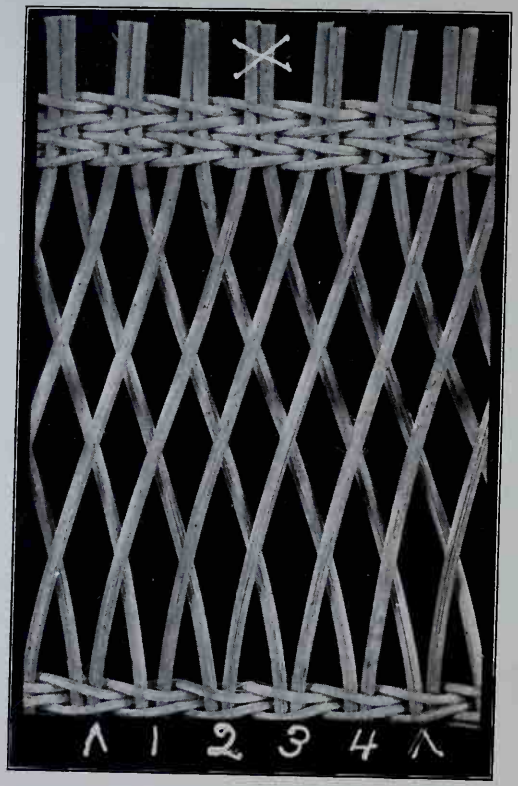


FIG. 7. OPEN WEAVES.

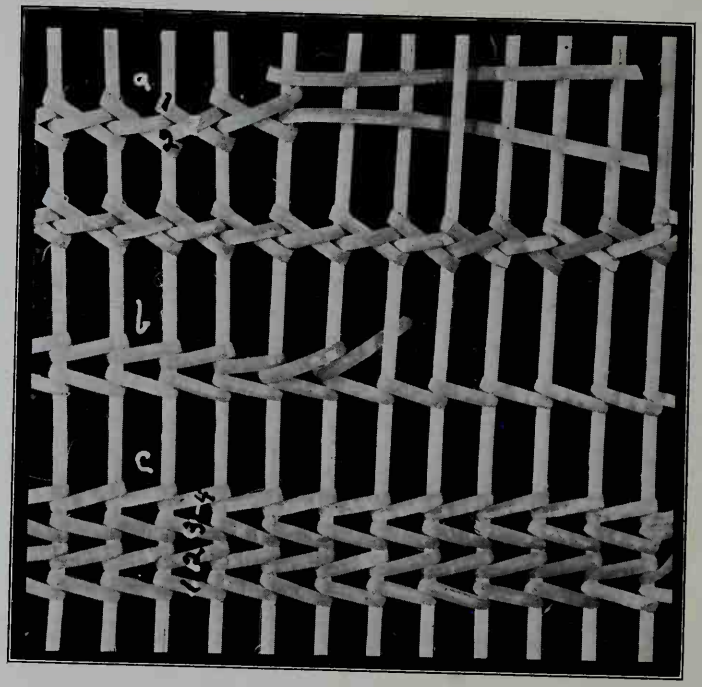


FIG. 8. OPEN WEAVES.

At *c* are shown four rows of another weave. All the rows may be woven from left to right, but it is easier if row 1 is woven from left to right, row 2 from right to left, row 3 from left to right, etc. A little practice will show the reason. See Fig. 35, where this weave is used in the lamp shade.

CHAPTER III

CENTRES, OR WEAVING FOUNDATIONS

FOUR types of centres, or weaving foundations, are shown in this chapter. There are others, but when these four are mastered in all their variations and combinations, the basket-maker will have a sure foundation for good work.

For convenience in referring to them later they will be known as centres Nos. 1, 2, 3, 4.

Centre No. 1, Fig. 9. — The number of spokes varies from four or five to sixteen or more, according to design of basket and size of reeds used. In making very small baskets, using Nos. 2 or 3 reeds for spokes, the spokes may be placed one group on top, or over, the other, instead of through as described later. In using the larger sizes it makes a more satisfactory centre to follow the method shown in the models, Fig. 9, *a*, *b*, *c*.

To make centre *a*, cut eight spokes the desired length. With the awl pierce four spokes through the middle and insert the other four spokes in the opening, which is made long enough for the others to lie side by side. Hold the spokes in the left hand with the inserted spokes in a vertical position.

Double a weaver around the inserted spokes, bring the back weaver to the front, and carry the front

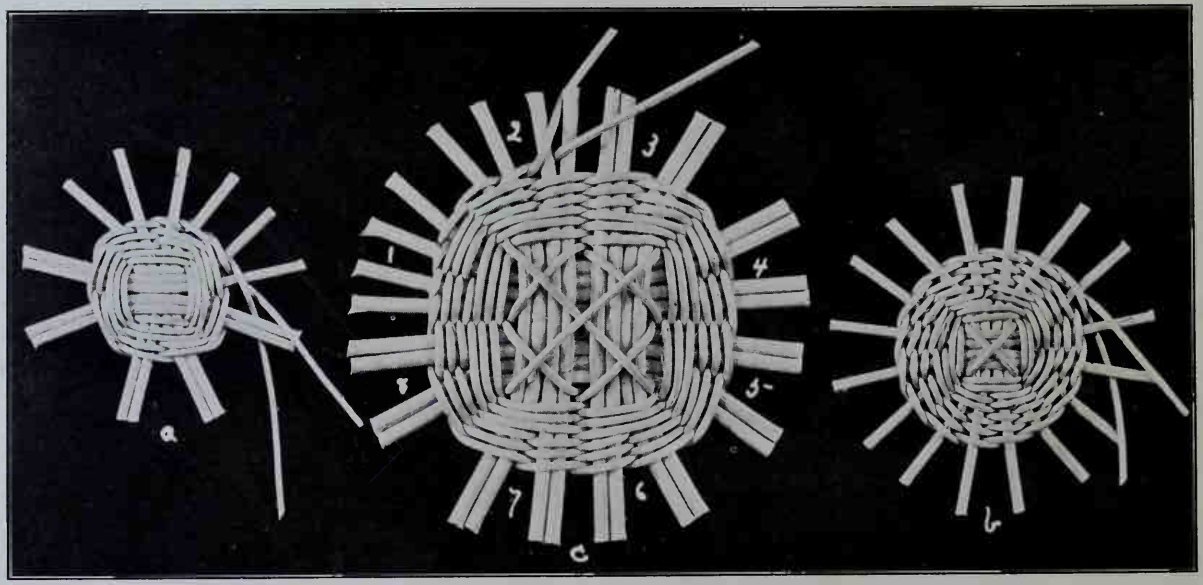


FIG. 9. CENTRE NO. 1.

weaver to the back, which places them in position to begin pairing weave. Weave three rows pairing around the groups of four spokes. Separate the spokes into groups of two spokes each, weave two rows pairing, then separate the spokes into singles and weave according to the design of the basket.

To make centre *b*, insert four spokes through four spokes as described in *a*, hold the inserted spokes in a vertical position. Place the weaver around the inserted spokes, and bring the left weaver diagonally across the front to the lower right-hand corner. Turn the centre from right to left so that the horizontal spokes are vertical, and bring the other weaver, which is now in the same position as the first, diagonally across the front to the lower right-hand corner. Turn the work once more, bringing the inserted spokes to a vertical position. Bring the left weaver around the back of the vertical spokes and to the front at the upper right-hand corner. Turn the work again. The weavers are now in position to begin pairing weave around four spokes at the time; weave two rows. Next separate the spokes into pairs; weave two rows pairing. Separate the spokes into singles, weave pairing, or continue the weaving according to the design of the basket.

In making small baskets with this centre the spokes may be cut the full length, but for baskets over four or five inches in diameter it is better to have half the

spokes the full length, and to insert extra ones after the basket is ready to turn up at the bottom. Cut the extra spokes an inch or more longer than the others; sharpen the ends and insert one, or more, by the side of each spoke, pushing them well down into the weaving.

The model *c* shows sixteen spokes, eight spokes inserted through eight spokes. Double a weaver and place it between groups 1–8 and begin pairing; weave diagonally around groups 1–2, 3–4, 5–6, 7–8; turn the work from right to left for convenience in weaving.

Do one stroke of pairing around group 1. Hold the centre with the inserted reeds in a horizontal position, bring the back weaver to the front between 1 and 2, carry it diagonally down across the whole front to the lower right-hand corner, then diagonally across the back up to the starting point between 1 and 2. Do a stroke of pairing around 2 and one around 3.

Turn the centre so that the inserted spokes are vertical. Bring the back weaver to the front and carry it diagonally down across the whole front to the lower right-hand corner, then diagonally up across the back to the starting point between 3 and 4.

This completes the diagonals, making the front and the back the same. From this point begin pairing around groups of four spokes; weave three rows; the third row will end between groups 1 and 8. Separate the spokes into twos; weave three rows pairing. Sepa-

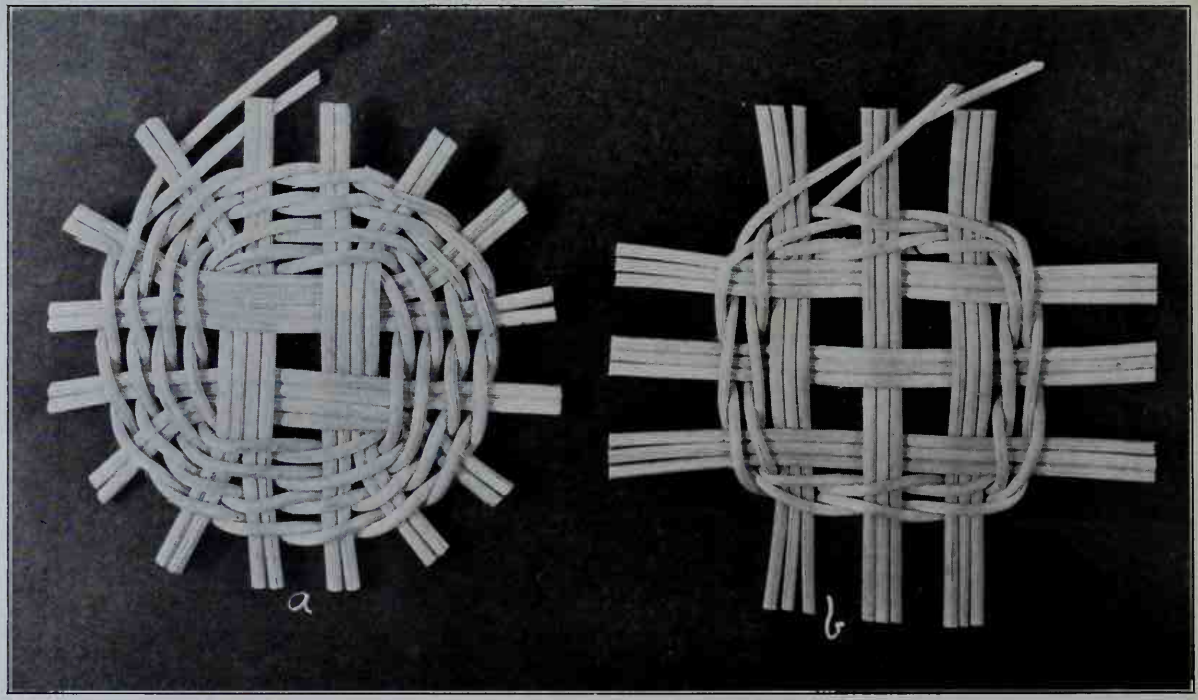


FIG. 10. CENTRE NO. 2.

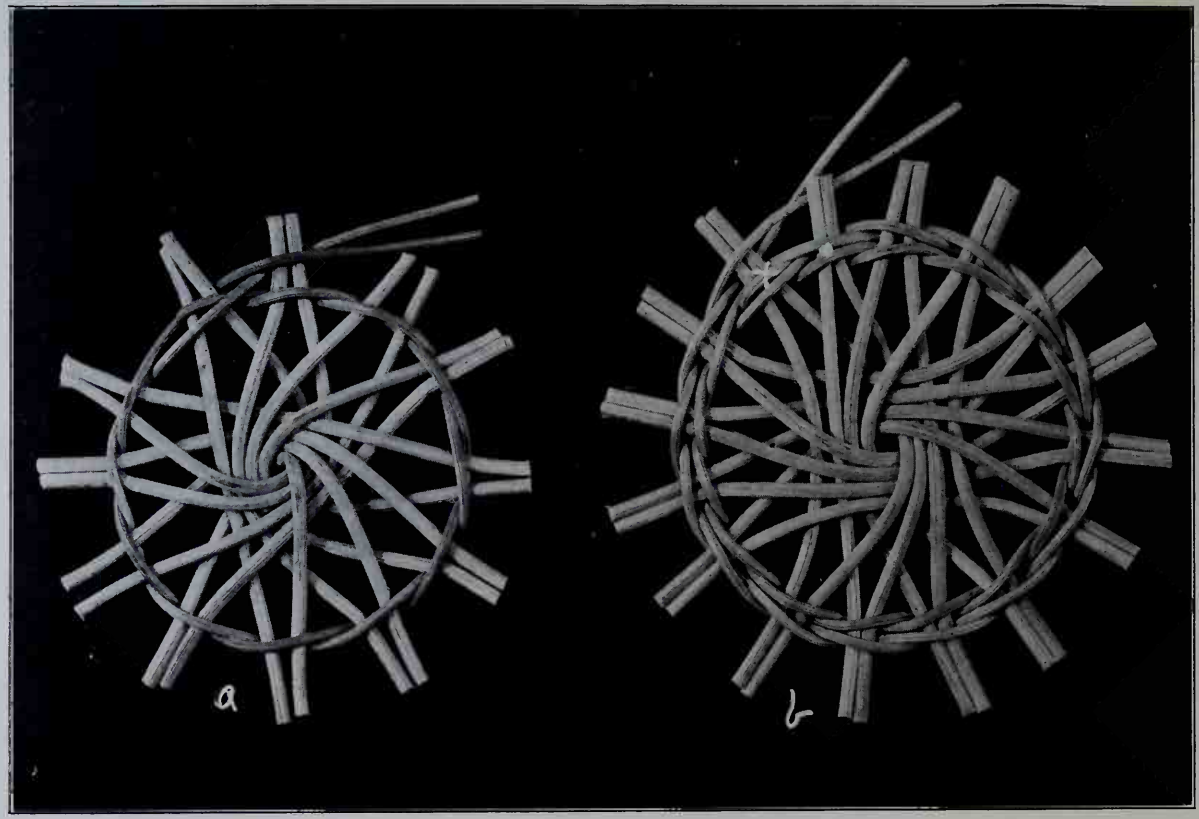


FIG. 11. CENTRE NO. 3.

rate the spokes into singles and continue the weaving according to the design of the basket.

This centre is very strong and serviceable for large baskets and trays. Extra spokes may be added as required.

Centre No. 2. — Fig. 10, *a*, shows the simplest form of this type centre. Sixteen spokes in groups of fours are placed over and under, like a section of plain weaving.

Double a weaver around any group of spokes, weave two rows pairing around groups of four spokes. Separate the spokes into twos, weave two or more rows pairing, then separate the spokes into singles and continue the weaving according to the design of the basket. This is a very useful centre in making small baskets; the centre may be started with large enough groups to make the required number of spokes and thus avoid the work of cutting extra spokes.

The model *b* shows another method of making this centre; many combinations may be worked out by varying the number of reeds in a group, and by varying the spacings. This is a practical centre for sewing-baskets, for trays, and flower-gathering baskets, and also for wood baskets. In the latter use large reeds. In making trays and flower-baskets the centre may form almost all of the basket. The groups of spokes may be placed close together, making a close weave, or the spaces between the groups of spokes may be

wider, especially when No. 5 or 6 reeds are used. Continue the weaving perfectly flat as large as the tray or basket is desired, then finish the edge after any of the borders described in Chapter IV. The reeds of the handle are inserted in a way to hold the sides in place when turned up.

Centre No. 3, Fig. 11. — This centre, which has been used to some extent by modern basket-makers, had its origin in primitive basketry. This method of beginning a centre was used by Malaysian and probably by other aboriginal basket-makers.

This type centre can be used for many kinds of small baskets, and for large ones where no very great strength is required in the bottom. For lamp-shades, for trays, for the top and bottom of sewing-baskets, and for covering bowls for short-stemmed flowers, it is especially adaptable, and is capable of the greatest variety of spacing in the number of spokes and weavers used. It is one of the most ornamental of all the methods of beginning a basket.

The model *a* shows three groups of four spokes each; *b* shows four groups of four spokes each.

To begin a centre with four groups, cut sixteen spokes the required length; divide them into groups of four spokes each. Place group 1 on the table in horizontal position; place group 2 over group 1 in vertical position, and to the right of the centre; group 3 over group 2 in horizontal position; group 4 over 3 in ver-

tical position, and slip the end of group 4 under the end of group 1.

Double a weaver around the outside spoke of group 4 and the inside spoke of group 2. (See *x* in model *b*, for pairing weave.) Take up the next spokes, one from each group, until these two groups have been taken. Then begin with groups 3 and 1; take one spoke from each group as before, and continue until the circle has been completed. It will take practice to make the spaces between the pairs of spokes come out just right every time. The second row of the model is pairing weave reversed.

The number of spokes to the group depends upon the size of the basket, the size of the reeds, and the use for which the basket is designed. Ten to fifteen spokes to the group will make a very ornamental centre.

Two spokes from each group may be taken, making the weaving around four spokes at the time, instead of the two shown in the model. For illustration of this see Figs. 18 and 19, a bowl for short-stemmed flowers.

For lamp-shades this is one of the most satisfactory ways of beginning the centre. (See Fig. 34.)

Centre No. 4. — Fig. 12 shows a centre which may be used for many kinds of baskets, trays, and lamp-shades. It is so ornamental when given its best development that a special study of the various com-

binations of spokes and spacings will be time well spent.

The number of groups of spokes may vary from three to eight, according to the size and design of the basket. The number of spokes to the group also depends upon the effect desired.

The models *a* and *b* show six groups of two spokes each. This gives twenty-four ends, or spokes, and is a very useful centre for small baskets. The model *c* shows six groups with four spokes to the group. This gives forty-eight ends, or spokes, and in large baskets and trays, where no very great strength is required, this centre is not only beautiful, but a time-saver as well. The model *d* shows eight groups of two spokes each.

To begin *b*, cut twelve spokes the required length; separate them into groups of two spokes each. Place group 1 on the table and lay group 2 across it, about one inch from the centre of each group, and at the angle shown in the illustration. Lay group 3 across group 2 in the same way; group 4 across group 3; group 5 across group 4; group 6 across group 5, then slip the end of group 6 under the end of group 1.

Place the left hand over the whole to keep the groups in place. Begin with the right-hand end of group 1: lift and place it over group 3, place the end of 2 over 4, 3 over 5, 4 over 6, 5 over 1, 6 over 2. This binds and holds the groups in place ready for the weaving.

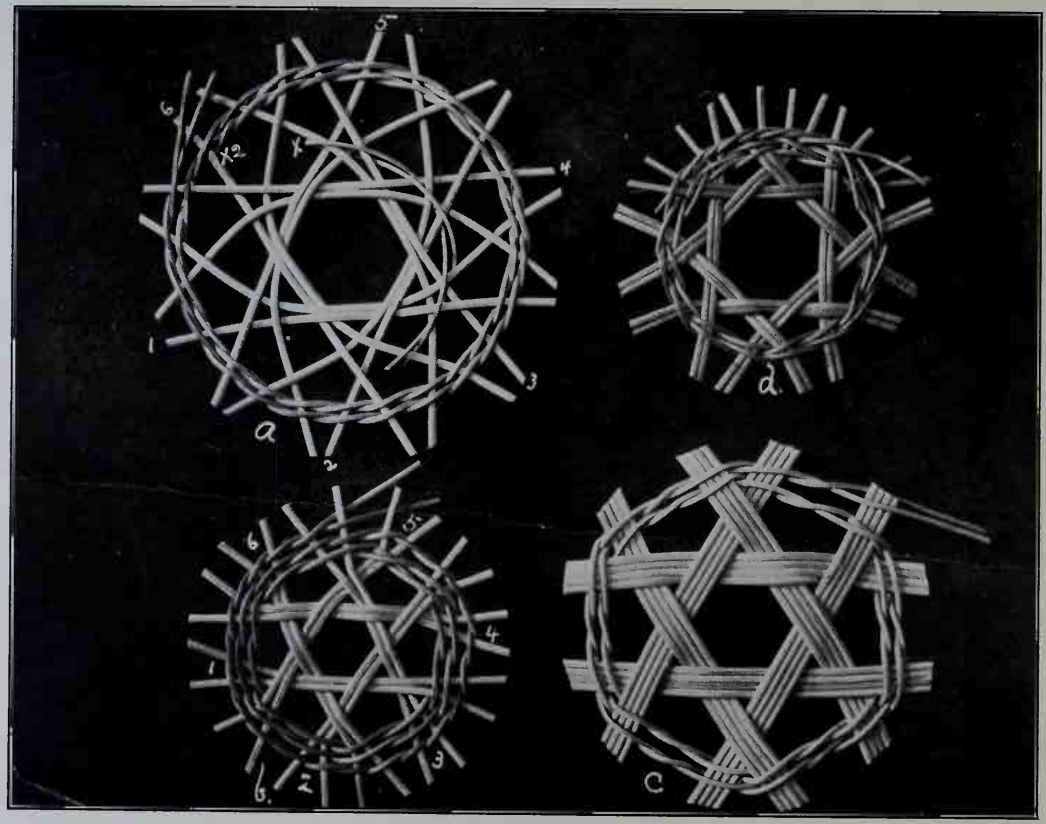


FIG. 12. CENTRE NO. 4.

The model shows the weaver doubled around group 5 (any group will do), and shows two rows of pairing weave around groups of two spokes each. The spokes are next separated into singles, and one row of pairing is done. This is the simplest form of this centre.

In the model *a* the groups of spokes are placed the same as *b*, but the weaver is doubled around two groups of spokes at the time, *x*, and one or two rows of pairing are done to hold the groups in place. The model shows only the beginning of this weaving, as these rows are cut out after the next few rows are done, because they interfere with the design.

The next row of weaving separates the spokes into singles. Double the weaver around the outside spoke of group 6 at *x*2 for pairing weave. Next take the inside spoke of group 3 placed under the inside spoke of group 6, then the inside spoke of group 6, and next the outside spoke of group 3. Begin with the outside spoke of group 5, and continue as before until the round has been completed. The model shows two rows of pairing weave. This is the simplest form of this variation of centre No. 4. For large baskets and trays the number of spokes in the group may be increased to four, six, or eight. In this case, where the spokes are separated into singles, in the model they may be separated into groups of two, three, or four, the groups counted as one spoke. Later, as the work

progresses, they are again separated into smaller groups or singles.

Model *c* shows the first steps of larger groups of spokes, and *d* shows eight groups of two spokes each. The method of placing the spokes is the same in these as in *a* and *b*. The model *d* shows two rows of pairing weave; the second row is reversed. The third row begins triple weave and separates the spokes into singles. For further illustration of the use of centre No. 4, see tray, Fig. 30, and also tray, with wood beads, Fig. 31.

CHAPTER IV

BORDERS

IT is not the design of this book to show all the elementary steps in reed weaving. For this reason the technic of only the most useful borders for the work illustrated will be given.

Closed Borders. — Fig. 13 shows a type of closed border which, in its simplest form, is made as follows: Begin with any spoke, pass this behind the next spoke to the right and out, continue this around the basket, passing the last spoke under the loop made by the first, and out. For the second row: begin with any spoke, place it in front of the next spoke to the right, then through the loop to the inside of the basket. When all the spokes have been inserted cut them close to the weaving. Other steps in making this border are: 1 spoke behind 2 and out, first row; 1 in front of 2 and in, second row; 1 spoke behind 2 and out, first row; and 1 in front of 3 and in, second row. The latter is the step shown in Fig. 13. This is a very useful border for all kinds of baskets, large and small, where a closed border is desired. A third row is sometimes made in borders of this type as follows: Looking into the basket, place one spoke over one spoke (or more)

and down; take the next one to the right, place it over one spoke (or more) and down; continue until all the spokes have been taken, then cut off the ends close to the weaving. This conceals the ends better than when the border is left at the second row.

In large baskets 1 spoke may be carried behind any number of spokes, up to 6 or 7, in the first row, and in the second row in front of 7 or 8. This makes a large rope-like roll of spokes, is very strong, and at the same time ornamental if well made. In this case the size of the basket, the size of the spokes, and the distance between the spokes must be considered.

Open Borders. — There are several kinds of open borders, and many ways of giving variety to them as to open spacings, etc. Fig. 14 shows an open border useful for many kinds and sizes of baskets. In the model the spokes are No. 4 reeds, one-half inch apart. The length of the spokes above the weaving is ten inches. The height of the curve above the weaving is one inch. This border, as shown, may be used on baskets from four or five inches in diameter to very large ones, by increasing the length of the spokes as the diameter of the basket increases.

Begin with any spoke, pass it behind three spokes and out, in front of one spoke to the inside of the basket and leave; continue this around the basket, and when the last three spokes are reached follow the same course, inserting them behind three through the open-

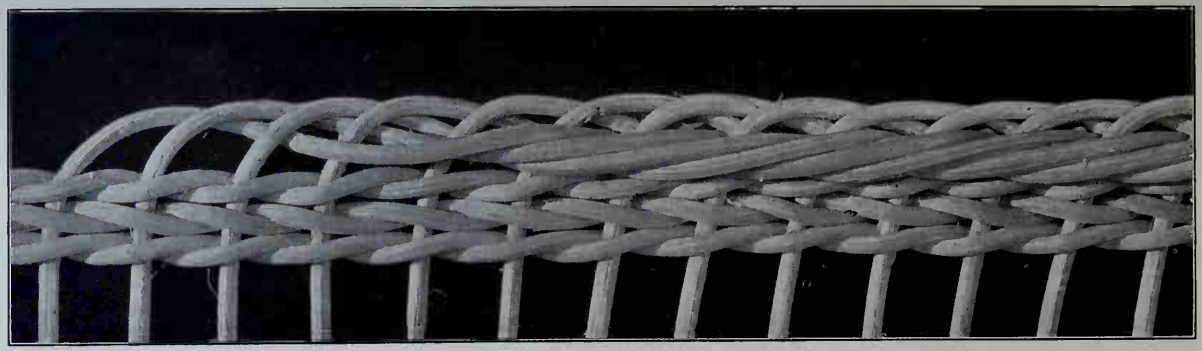


FIG. 13. CLOSED BORDER.

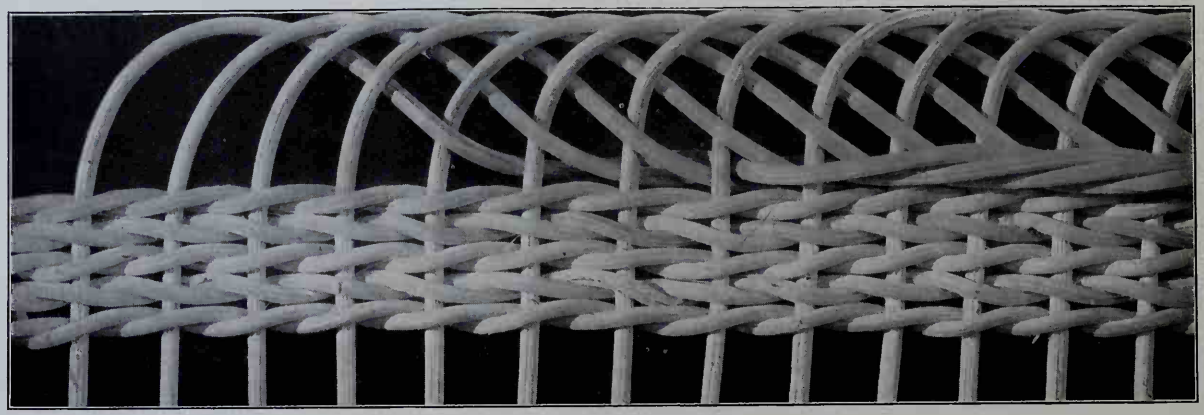


FIG. 14. OPEN BORDER.

ing to the front, over one spoke and through the opening to the back. For the second row, looking down into the basket, place one spoke over two spokes, through the lowest opening between the spokes and the weaving at the right of the third spoke, and to the front, and leave. For the third row, begin with any spoke, place it over three spokes, to the right of the fourth spoke and through to the back under the second row. Continue around the basket and cut off the spokes close to the weaving. A different effect is obtained by passing the spokes under instead of over the three in the third row. When the spokes are carried in pairs the method is the same, but it is necessary to have the space between the spokes wider.

Braided Border. — Fig. 15 shows one of the several braided or "commercial" borders. This is useful for baskets where a strong finish is desired. In this model No. 3 reeds are used for spokes. The diameter of the model is four and one-half inches, the space between the spokes is one-half inch, the length of the spokes above the weaving is ten inches. All this has to be considered when cutting the spokes.

Begin at any place, number the spokes 1, 2, 3, 4, etc. Bend down to the outside Nos. 1, 2, and 3. Bring 1 over 2 and 3; place it between 4 and 5 to the inside and leave, as described by dotted line 1. Bend down 4 to the outside. Carry 2 over 3 and 4, between 5 and 6 to the inside and leave, as described by dotted line

2. There are now two spokes inside (1 and 2), and three spokes outside (3, 4, and 5).

*x*Take 3, the first outside spoke, carry it over 4 and 5, place it between 6 and 7 to the inside. Take 1, which is the first inside spoke, bring it between the same last two spokes, 6 and 7, to the outside and leave. Bend down 6 beside the spoke just brought out (1), having 6 lie nearer to you. *x* Repeat all the way around the basket from *x* to *x*.

The spokes are all now on the outside. Begin with any spoke (in the model it is 7), follow the one it lies parallel with to the inside, pull it until it slips under and to the left of that spoke, and to the inside of the basket. Repeat this until all the spokes are inside.

Take any spoke (in the model it is 12), follow the one it is parallel with, bring it to the outside and leave. Repeat this until all the spokes are on the outside, then cut the ends close to the weaving.

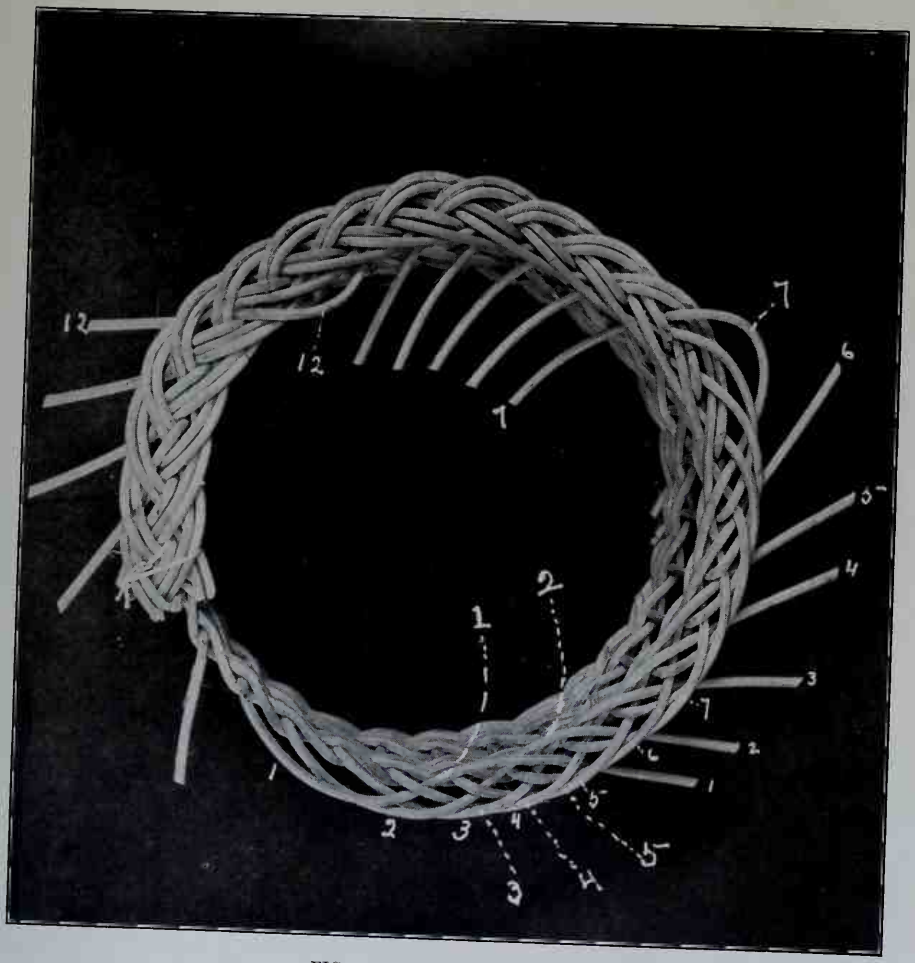


FIG. 15. BRAIDED BORDER.

CHAPTER V

MODEL BASKETS

A CAREFUL study of the fundamental structures described in Chapters II, III and IV, with practice in acquiring good form, will enable one to make any of the following reed models.

The baskets shown in this chapter are not intended as a progressive series. They stand, each one, as a separate expression of a basket-maker's love of the oldest of all the crafts.

WALL BASKET

Fig. 16 shows a wall basket which is large enough to hold long branches of flowering shrubs or trees, or long-stemmed garden flowers. It is very effective when hung low on the wall of porch or sun parlor, or where any wall space needs a decoration.

The basket is made over a tin container which measures three inches in diameter at the bottom, five inches at the top, and twelve inches in height. The tin is flattened to an oval at the top, the long diameter of which is six inches, and the short diameter four inches. The length of the basket is twenty inches.

Use No. 1 reeds for the centre and for winding the handle; No. 3 for all the other weaving; No. 4 for spokes; No. 7 for the handle.

Cut twelve spokes fifty-seven inches long. Begin with centre No. 1, *a*, Fig. 9: Insert six spokes through six spokes. Weave five rows pairing around groups of three spokes each. Begin to turn the spokes up.

Insert one extra No. 1 weaver for triple weave; separate the spokes into twos, weave seven rows.

Cut out the weavers and insert two No. 3 weavers. Weave ten rows pairing over groups of two spokes; reverse alternate rows.

Insert one extra weaver; weave twelve rows triple.

Separate the spokes into singles; weave six rows triple; reverse alternate rows.

Insert one extra weaver and weave two rows quadruple.

Cut thirty-two extra spokes twenty-three inches long. Insert one by the side of every spoke except two at the back of the basket; bring these two together so there will be an uneven number of groups of spokes for the weaving which is to follow.

In shaping the basket up to this point keep in mind the size of the tin, as it must fit into the basket where the quadruple weave begins, and from this point to the top the weaving is done over the tin.

Cut out two weavers, carry two weavers together; weave forty-one rows of single weave, or over one group and under one group of spokes at the time.

Insert two weavers, weave four rows quadruple. Cut out two weavers, weave fourteen rows of over

FIG. 16. WALL BASKET.

two groups and under one group of spokes; carry the two weavers together. (See Fig. 1, *d*.)

Insert two extra weavers, weave five rows quadruple; this finishes the weaving.

To wind off, pass 1 group of spokes behind 3 groups, first row; 1 group over 3 groups and to inside of basket, and cut off.

Handle. — Cut one piece No. 7 reed thirty-two and one fifty-four inches long. Cut the ends to a long flat point. Insert the end of the longer reed into the side of the basket, just above the two rows of quadruple; on the opposite side, having thirteen groups of spokes in between, insert the other end, leaving eleven groups between the ends at the back of the basket.

Bind the handle to the basket at the four rows of quadruple weave. Select a long No. 1 reed for this. Insert the ends of the winder through the weaving from the inside to the outside of the basket, one end above and one below the four rows of quadruple; cross the winders on the outside over the handle, insert them back into the inside of the basket, and repeat this, making two crossings of the winders in the same place. Carry the winding reed on the inside of the basket to the next places, the five rows of quadruple weave. Bind the handle here the same as at the first place. Insert an extra winder and bring the other two to the outside of the basket between the quadruple weave and the bottom row of winding off. Carry

three winders together, wind the handle at intervals of half an inch until the winding reaches the other side of the basket, where it is fastened as before.

Insert the ends of the other piece of the handle into the basket at the top of the four rows of quadruple and back of the other handle, having two groups of spokes in between. Bind this to the basket at the five rows of quadruple, bring the winders to the outside, insert the extra winder and wind as before up to the middle of the two handles; wind the reeds around the two handles several times to hold them together, then continue the winding down to the basket; bind the handle, fasten the winders, and cut them off on the inside.

HANGING BASKET FOR CUT FLOWERS

Fig. 17 shows a hanging basket suitable for the porch or sun parlor. It is woven over an ordinary electric-light globe. There are colored globes, but the white ones may be painted with waterproof paint before the weaving is done.

The globe of this model measures six inches in depth, and nineteen inches in circumference at the centre.

The reeds are dyed before weaving. A soft tone of green is always in harmony with flowers and foliage.

Use No. 1 reeds for weavers, No. 3 for spokes. Cut sixteen spokes twenty-four inches long. Begin

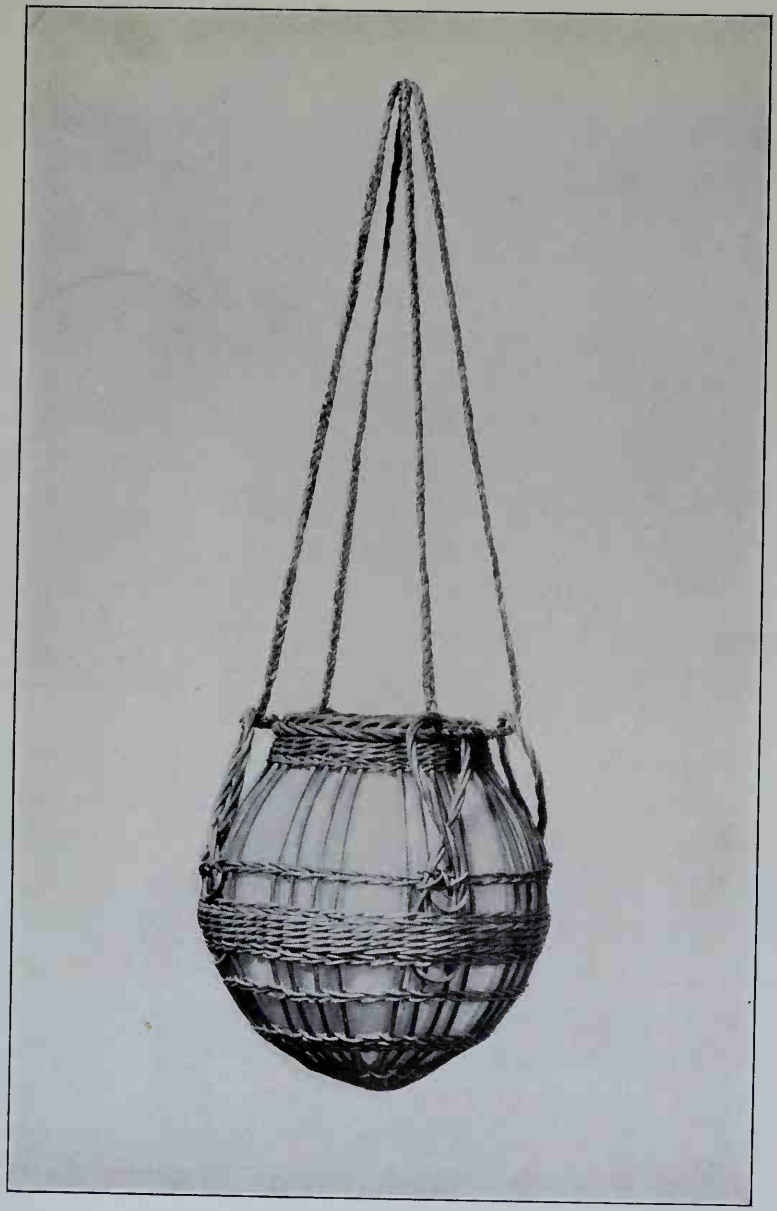


FIG. 17. HANGING BASKET FOR CUT FLOWERS.

with centre No. 3, with spokes in groups of four. (See Fig. 11, *b*.)

Double a weaver; begin with one spoke from each of the first two groups; weave two rows pairing, one of them reversed; fasten and cut off the weavers.

Measure one inch on the spokes for the next row of weaving. The work must begin to fit the globe from this point. Double a weaver for pairing; separate the spokes into singles; weave four rows; reverse alternate rows. The illustration shows the spokes in groups.

Measure one and one-half inches on the spokes for the next weaving. Double a weaver for pairing; weave two rows, one reversed.

The spokes are kept the same distance apart all the way to the top. The width of the space between the groups of spokes increases to the centre of the globe, then decreases to the top. This arrangement of the spaces gives variety to the design.

Tie the weaving to the globe with a small wrapping cord; it can easily be cut out when the work is finished.

Measure one-half inch on the spokes for the next weaving; weave two rows pairing, one reversed. Insert an extra weaver for triple; weave four rows; cut out one weaver; weave two rows pairing, one reversed.

Measure two inches on the spokes for the next weaving; weave two rows pairing, one reversed. In-

sert an extra weaver; weave three rows triple. This brings the weaving to the top of the globe.

To wind off pass one spoke behind three spokes and out, first row; one spoke under two spokes and to the inside between the weaving and the globe, second row. (See "Closed Borders," Chapter IV.)

The basket is suspended by four loops of twisted reeds. To make the loop insert one end of a No. 3 reed between the two right spokes of any group of spokes, above the wide space of weaving, pass it down between the wide space of weaving and the globe, bring it out and across the two middle spokes of this group, insert it between the two left spokes and up between the weaving and the globe, then out.

Measure a loop of this reed that will reach to the top of the basket and down to where the reed was first inserted, and fasten. With the other end of the reed twist or wind this loop around to the place of insertion, pass the end through the weaving, wind again and fasten securely. This completes the loop. As the spokes are divided into eight groups there will be four loops.

The basket is suspended by a closely braided raffia cord.

BASKET FOR SHORT-STEMMED FLOWERS

Figs. 18 and 19 show the use of centre No. 3 in weaving over a glass bowl for holding short-stemmed flowers.

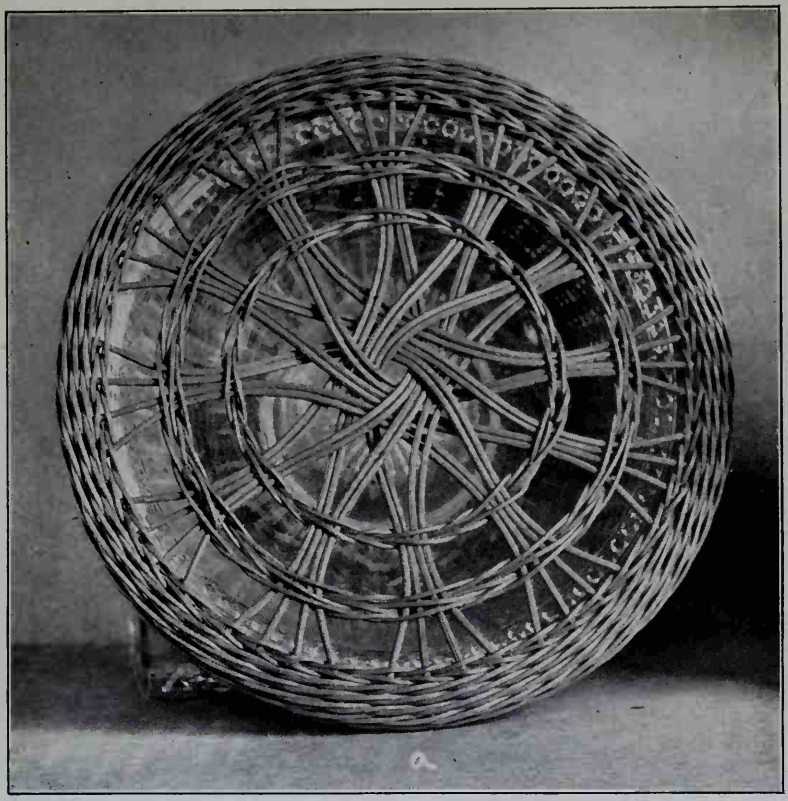


FIG. 18. TOP OF BASKET FOR SHORT-STEMMED FLOWERS.

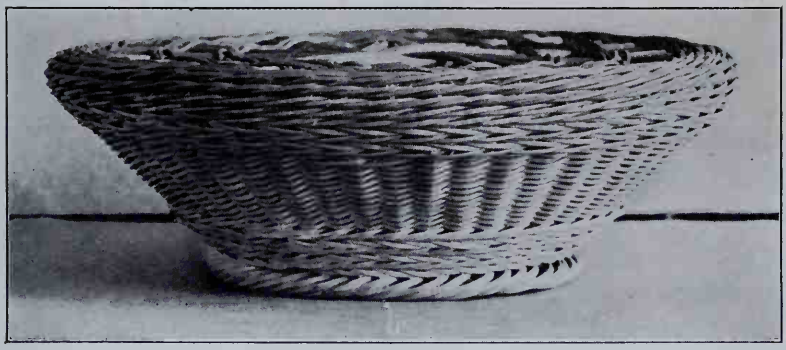


FIG. 19. BASKET FOR SHORT-STEMMED FLOWERS.

The bowl measures eight and one-half inches across the top, three inches across the bottom, and three inches deep.

Use No. 1 reeds for weavers, No. 3 for spokes. Begin with centre No. 3, having four groups of six spokes each.

Double a weaver for pairing; weave around two spokes at the time from each group. Make the first row two inches from the centre. Make an extra turn or twist of the weavers between the groups of spokes. The next row is the same reversed.

Measure on the spokes three-quarters of an inch for the next row of weaving; weave three rows pairing; reverse alternate rows and make the same extra turn between the groups of four spokes.

Measure one-half inch for the next row. Separate the spokes into singles; weave two rows pairing; reverse the second row.

Insert an extra weaver for triple and weave until the centre is the size of the bowl.

Tie the centre over the top of the bowl with a small wrapping cord by carrying it several times around the bowl through the spokes from top to bottom. The cord may be easily cut out after the work is finished.

Fig. 19 shows the weaving from this point. In the model there are three rows triple, four rows triple with alternate rows reversed, fourteen rows pairing, seven

rows quadruple with alternate rows reversed. This finishes the weaving.

To wind off, carry one spoke behind seven spokes and out, first row; one spoke over seven and to the inside between the weaving and the bowl, second row. (See "Closed Borders," Chapter IV.)

The color of this model was chosen especially for pansies. It is shaded from top to bottom, the top being the dark green of the leaves and gradually growing lighter toward the bottom, where it ends in the light yellow-green of the stems of the pansies.

The model is painted with a gloss paint thinned with turpentine. This gives a soft, mat finish, always better in small baskets than a high gloss.

BASKET FOR LONG-STEMMED FLOWERS

Fig. 20. — This basket is made over a tin container which measures three and one-half inches in diameter at the bottom, seven inches in diameter at the top, and twenty-one in height.

The basket measures, from the bottom of the basket to the top of the handle, forty-three inches.

Use No. 3 reeds for weavers, No. 5 for spokes, and No. 7 for the handle.

To begin, cut sixty-four spokes fifty-two inches long. The spokes are carried in pairs all the way.

Double a No. 3 weaver around a pair of spokes, fifteen inches from the bottom end, for pairing weave.

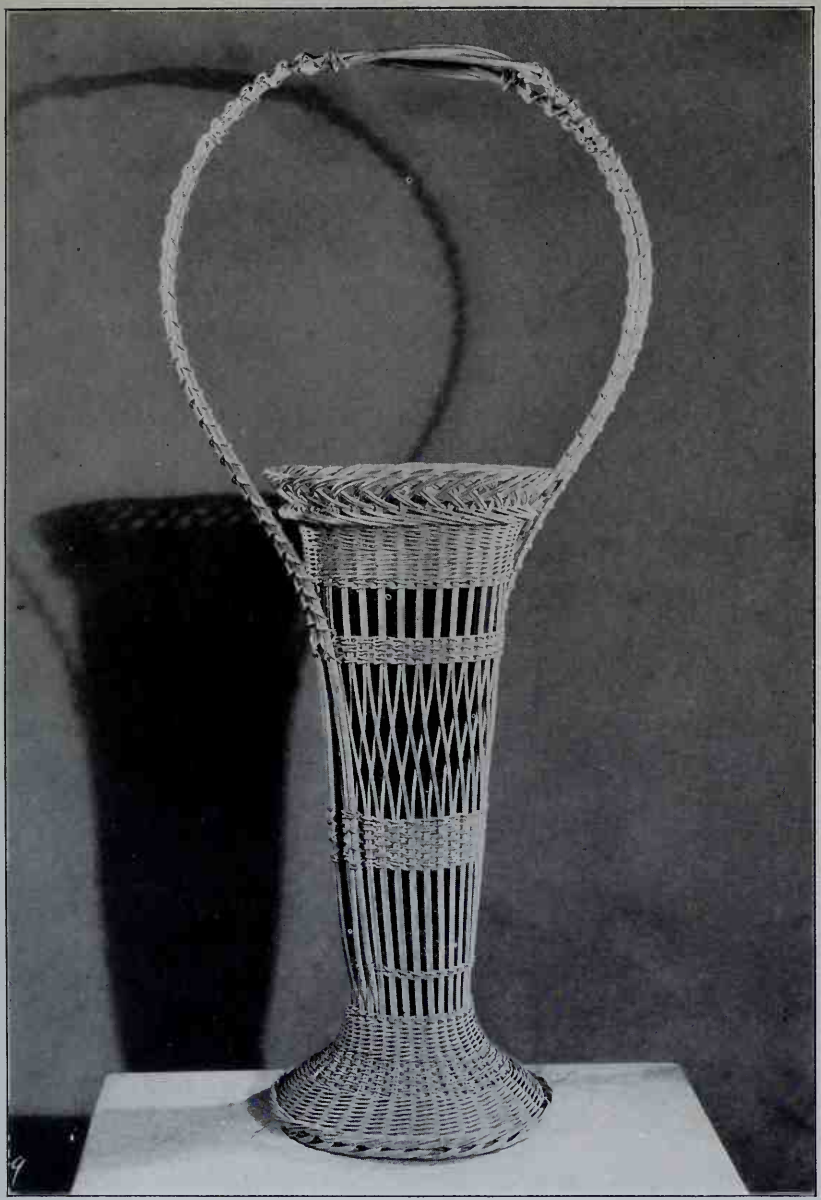


FIG. 20. BASKET FOR LONG-STEMMED FLOWERS.

Take a pair of spokes at the time; make the space between the pairs one-quarter inch. Hold the work in the left hand until all the spokes are taken; the weaving should then fit the tin about three and one-half inches from the bottom.

The weaving is carried toward the bottom from this first row.

The second row of weaving is pairing, reversed.

Insert an extra weaver for triple; weave seven rows. The spokes must begin to flare a little from the first row of triple, and continue to do so for three inches, or until the next fifteen rows are finished.

Cut out one weaver; weave eight rows pairing; reverse alternate rows.

Insert an extra weaver for triple. From this point gradually draw the pairs of spokes closer together to give a rounded edge to the bottom. Weave nine rows triple.

To wind off the bottom, pass one pair of spokes behind three pairs and out, first row. Bend this row down so that the basket will rest on the curved edge of the spokes. Second row: pass one pair of spokes over three pairs, and to the inside of the basket. The bottom measures eleven inches in diameter when finished.

Begin next to work toward the top. Keep the tin pushed down to the bottom of the basket, as it should rest on the floor or table when the basket is finished.

From the first row of weaving where the basket was started, measure one and one-half inches on the spokes for the next weaving. Double a weaver around a pair of spokes; weave two rows pairing; reverse the second row.

Measure six and one-half inches on the spokes for the next row; double a weaver, weave two rows pairing; reverse the second row. Cut out one weaver; weave over one pair of spokes and under one pair, two rows in the same place, then pass the weaver behind two pairs of spokes to change the course. Weave seven courses; insert an extra weaver; weave two rows pairing; reverse the second row.

Measure six and one-half inches on the spokes for the next weaving. Begin with any pair of spokes; carry the left reeds of the pairs to the left under the right reeds, which are carried to the right. Begin with pair 1; the right reed of this pair and the left reed of pair 4 are brought together (see Fig. 6), and the weaver doubled around them for pairing weave. Remember to carry the left reeds under the right, and to keep the spacing even. Weave six rows pairing; reverse alternate rows.

Measure two inches on the spokes for the next weaving. The spokes are again parallel. Double a weaver; weave two rows pairing; reverse one row.

Insert an extra weaver for triple; weave six rows. Reverse the weave and weave six more rows triple.

This takes the weaving about two inches above the tin.

To wind off the top, pass one pair of spokes behind three pairs of spokes, in front of one pair, behind one pair, and to the inside of the basket, first row. (See Fig. 14.)

As you look down into the basket, pass one pair of spokes over three pairs, then through the lowest opening and to the outside of the basket, second row.

Next, pass one pair of spokes under three pairs and to the inside of the basket under the second row. Cut off the ends close to the basket. This makes a very satisfactory finish on the inside and the outside of the basket.

Handle.—Cut four pieces No. 7 reed one hundred and ten inches long. Cut the ends of the reeds to a long, flat point.

Mark the exact centre of the reeds; double them; hold a pair in each hand; slip the doubled end of the left pair through the doubled end of the right pair, and bring the ends of the right reeds through and on top of the left loop.

After the reeds are adjusted the distance between the ends of the loops should be about ten inches. Tie the reeds in place with a cord until the handle is finished.

Insert the four pointed ends of one side of the handle into four consecutive spaces of the bottom

row of open spaces. Find the middle of the opposite side of the basket and insert the other ends of the handle in the same way.

The handle is fastened to the basket at the lower wide space of weaving. Double a No. 3 reed around a pair of spokes just below the weaving, and enclosing two of the handle reeds, wind around twice. Next wind these two reeds of the handle, crossing the winders, up to the top of this same space of weaving, then pass the winders around the pair of spokes and the handle twice, as at the beginning, and fasten and cut off the winders. Repeat this with the other pair of this side of the handle, having a space of one inch, or one pair of spokes in between the two pairs of the handle. Repeat this on the opposite side of the basket.

Select a very long reed for the next winding, as it must reach to the loop of the handle. Double the reed and bind the handle to the basket at the next space of weaving. Bring the four reeds of the handle close together but bind the pairs separately by winding entirely around the weaving and the pairs of the handle reeds.

To begin winding the handle from this point up to the loop, hold a winder in each hand, pass each one from front to back between the pairs of handle reeds, cross the winders, bring them around from back to front, cross them and pass to the back again between

the pairs of the handle. Repeat this at intervals of one inch between the crossings. The space between the pairs of the handle is one quarter of an inch. Continue this winding up to four inches from the loop where the pairs of the handle begin to separate.

At this point carry one winder around the whole handle twice, then wind around one pair up to the loop; wind several times around where the four reeds cross, then wind back, crossing the other winder down to where the pairs separate.

With the other winder repeat this on the other pair of the handle up to the loop and down to where the pairs separate, fasten and cut off.

This completes one side of the handle. Repeat on the other side of the basket.

Paint the tin a soft yellow-green, which harmonizes with any foliage and flowers. Paint the basket a creamy white.

This design may be used in making smaller baskets than the above.

Using a tin that measures two and one-half inches in diameter at the bottom, four inches at the top, and ten in height, the same weaves may be used, the same spaces only shortened, the same finish at the top and the bottom, and the same handle.

For this size tin use No. 2 reeds for weavers, No. 4 for spokes, and No. 6 for the handle.

Cut the spokes forty inches long.

WINDOW BASKET

Fig. 21 shows a little hanging vase made over a one by twelve-inch test-tube.

Use No. 0 reeds for the spokes and weavers, No. 5 for the handle.

Cut twelve spokes sixteen inches long. The spokes are carried in pairs. Begin with a pair of spokes, find the middle, and double around a pencil to make a curve at the double about the size of the pencil.

Hold a pair of the doubled spokes in the left hand. Double a weaver around the left half of the spokes, about a quarter of an inch above the curve, begin with pairing weave, take up the right half of the spokes. Make a turn of the weavers between each pair of spokes.

Take up all the spokes in turn after having carefully curved them around a pencil to prevent breaking when doubling.

After all the spokes are taken join the weaving around the tube. It should fit the tube closely. There will be six doubled ends of spokes and the curves of these should be the same size.

After joining the weaving, reverse the next row of pairing weave, then weave five rows of pairing; reverse the last row. Fasten and cut off the weavers.

Measure one-half inch on the spokes for the next weaving. Double a weaver around a pair of spokes;

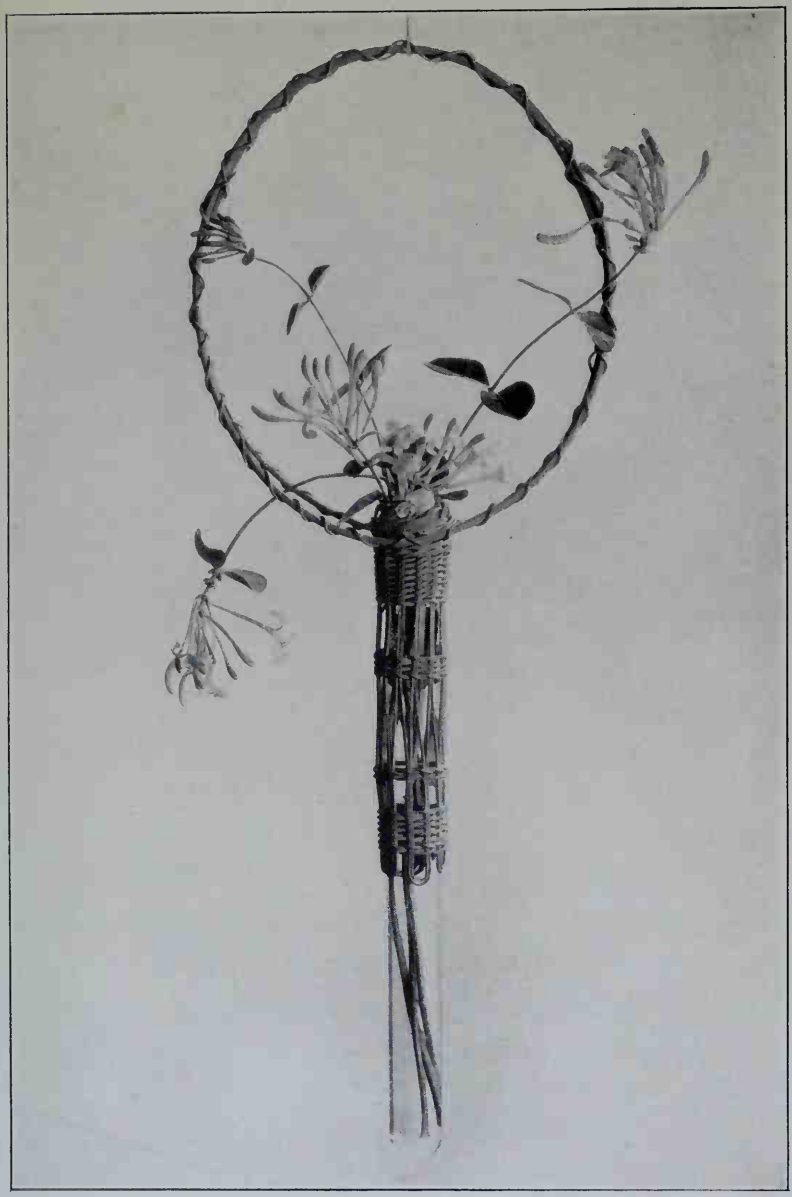


FIG. 21. WINDOW BASKET.

weave two rows pairing; reverse the second row; fasten and cut off the weavers.

Measure one and one-half inches on the spokes for the next row. Double a weaver around the right spoke of one pair and the left spoke of the next pair; continue this until all the spokes are taken; then weave three rows pairing; reverse alternate rows.

Measure one inch on the spokes for the next weaving. Double a weaver around a pair of spokes (they are now parallel); weave one and one-half inches of pairing weave with alternate rows reversed. This brings the weaving to the top.

To wind off pass one pair of spokes behind two pairs of spokes, and out, first row; and one pair over two pairs, and to the inside between the weaving and the glass.

Handle. — Cut two pieces No. 5 reed eighteen inches long. Cut the ends to a flat point and overlap them to form a circle of each reed. Tie with a small thread where the reeds are overlapped to hold the ends in place. The thread can be cut off after the handle is finished.

Be sure that the circles are the same size. Fasten the circles to the weaving at the place where they are lapped, and just below the second row of the winding off. This is done by passing a winder of No. 1 reed around the handle, through to the inside and back again, crossing the winders on the outside. Take the

tube out while this is being done. Fasten the circles on opposite sides of the tube.

Wind the four sections of the handle separately up to about four inches from the tube, then bring the two circles together. From this point wind the two together by crossing the winders at intervals of one inch, or less, over to the point where they separate on the opposite side. Then wind the two parts separately down to where they are fastened to the weaving. Fasten and cut off the winders.

This makes an interesting flower-holder for the automobile. For this purpose use a six-inch tube, let the weaving reach the bottom of the tube for protection of the glass and make a very much shorter handle.

Give the reeds a thin coat of shellac, or paint, as desired.

BASKET FOR SMALL FLOWERS

Fig. 22 shows a basket three and one-half inches in height, and fourteen in the largest circumference.

When woven over a round bowl the shaping is an easy problem.

Use No. 1 reeds for weavers, No. 3 for spokes. Cut sixteen spokes fifteen inches long.

Begin with centre No. 2, with the spokes in groups of fours. Weave two rows pairing around groups of four spokes. Separate the spokes into twos, weave three rows pairing.

FIG. 22. BASKET FOR SMALL FLOWERS.

At this point tie the centre to the bowl; use a small wrapping cord; pass the cord between the spokes around the bowl from top to bottom.

Insert two extra weavers for quadruple; separate the spokes into singles. The whole basket is woven in quadruple with alternate rows reversed. Keep the spokes evenly separated and the weaving close and firm.

Finish by passing one spoke behind four spokes and out, first row; one spoke over two and to the inside, second row. Continue the curve of the basket in the winding off by pressing the first row down to the inside of the basket, so that when the second row is finished the round shape is kept to the very edge.

Handle. — Cut six pieces No. 3 reed twenty-four inches long. Insert the ends, in groups of two, half an inch apart, into the weaving at the bottom of the basket.

Insert two No. 1 reeds into the weaving by the side of the right group of the handle. With the two reeds close together wind this group, at intervals of half an inch, up for five inches, then cross the winders around the centre group, pass over to the left group and wind this down to the bottom, then run the winders through the weaving to the middle group. Wind this group up to the crossing; wind around several times, fasten and cut off the winders. Repeat this on the opposite side of the basket.

Next bring the reeds of the handle close together,

three inches above the last winding, wind twice around the three groups together with a single winder. Then pass one end of the winder up from the inside of the handle through the space between the outside and inside groups, cross the two reeds that are wound around, pass it through the same space between the same two groups and to the inside of the handle, fasten and cut off. This fastens one end of the winding reed. Repeat this with the other end, passing it between the other two groups.

Repeat this at the same place on the opposite side of the handle.

Begin winding the handle at the top one inch from the centre. Double a winder, pass the two ends up through the two spaces between the groups; this places the winder under the middle group and on top of the other two.

Next, with a winder in each hand, bring them down and around the outside groups, up through the spaces, cross them over the middle group of the handle and pass them down through the spaces. This leaves them under the outside groups.

Bring the winders up and over the outside groups, pass them down through the spaces, cross them under the middle group, and bring them up through the spaces again and on top of the outside groups. They are now in position to repeat the movement, twice from the beginning; fasten and cut off.

This model is dyed a soft light orange after it is made. When dry it is shaded from the top. Orange cadmium, artist's paint, is used for this. The color is thinned with turpentine and is made thinner as it gradually blends into the color of the dye, about half way down on the basket.

Vandyke brown is used around the top of the basket, and on the dark part of the handle, the spaces between the windings.

The three places where the handle is wound are painted orange. The handle is shaded, from the brown space down, the same as the basket.

The whole effect is very interesting if the colors are not too intense. The paint thinned with turpentine dries with a flat finish, the same as the dye.

FOR FLOWERS OR PLANTS

Fig. 23. — This basket measures seven inches in diameter at the top, fourteen inches in the largest diameter, ten inches in depth. From the bottom of the basket to the top of the handle is twenty-six inches.

Use No. 3 reeds for weavers and winders, No. 4 for spokes, and No. 10 for the handle.

Cut forty-eight spokes forty-five inches long. Use centre No. 2; divide the spokes into groups of twelve each. Push the groups as close as possible together at the centre. Double a weaver around a group of twelve

spokes to begin pairing weave; weave two rows to hold the spokes in place; these rows may be cut out later.

Separate the spokes into fours; weave three rows pairing. From this point the spokes begin to turn up very gradually.

Insert an extra weaver for triple; weave seven rows.

Cut out one weaver; separate the spokes into twos; weave ten rows pairing; reverse alternate rows.

Insert an extra weaver; weave nine rows triple. From this point the basket should begin to round over.

Cut out one weaver; weave six rows pairing; reverse alternate rows. This space of pairing weave forms the largest diameter of the basket.

Insert an extra weaver; weave four rows triple. From this point the spokes are gradually drawn closer together. The shape of the basket must be kept constantly in mind.

Cut out one weaver; weave eighteen rows pairing; reverse alternate rows.

Insert two extra weavers for quadruple; weave four rows.

Cut out two weavers; weave seven rows pairing.

Insert two extra weavers; weave two rows quadruple. The basket should measure seven inches in diameter at this point.

Pass the four weavers to the inside of the basket and cut them off.

FIG. 23. FOR FLOWERS OR PLANTS.

To finish at the top, cut out one spoke of every pair of spokes close to the weaving.

Pass one spoke behind three spokes and out, first row; and one spoke over four spokes and to the inside of the basket, second row. Cut the ends close to the inside of the basket.

Handle. — Cut three pieces No. 10 reed sixty-one inches long. Sharpen the ends to a flat point. Insert the end of one reed into the nine rows of triple weave. Have the flat part of reed just long enough to fit into this space of weaving, so that the end of the reed reaches to the bottom of the nine rows, and the top of the cut is in line with the top of the space of weaving.

Count four groups of spokes; insert the next handle reed into the weaving with the four groups in between the two reeds. Count four more groups and insert the third handle reed.

Insert the other ends of the handle on the opposite side of the basket.

To begin winding, select a very pliable No. 3 reed. Bind the right reed of one side of the handle to the basket by passing the two ends of the winder through from the inside of the basket to the outside, just below the nine rows of triple; then cross the winders on the outside and pass them back to the inside just above the nine rows of triple. Enclose between the winders two pairs of spokes at the bottom

and at the top of the space of triple weaving. This makes a very neat and strong beginning.

Cross the winders on the inside of the basket and bring them to the outside by the side of the handle. Insert an extra winder by the side of each of these. The winders are carried in pairs.

Wind this piece of the handle up to fifteen inches above the point of insertion by crossing the pairs of winders at intervals of one inch.

Next bring the three reeds of the handle together and wind them across to the left reed. Wind this reed, the same as the other, down to the point of insertion; bind it to the basket the same as the first; fasten and cut off the winders.

Bind the middle reed to the basket the same as the others. For this select a very long reed. Insert the two extra winders, wind the handle up to the place where the three are brought together. With the same pairs of winders wind the handle over to the place on the opposite side where the reeds separate.

In winding the three reeds together the beauty of the handle depends upon the even spacing of the crossings. The pairs of reeds should cross at intervals of half an inch, and the crossing should come directly over the middle reed, both on the outside and underside of the handle.

When the point is reached where the reeds separate, wind the middle one down to the basket and

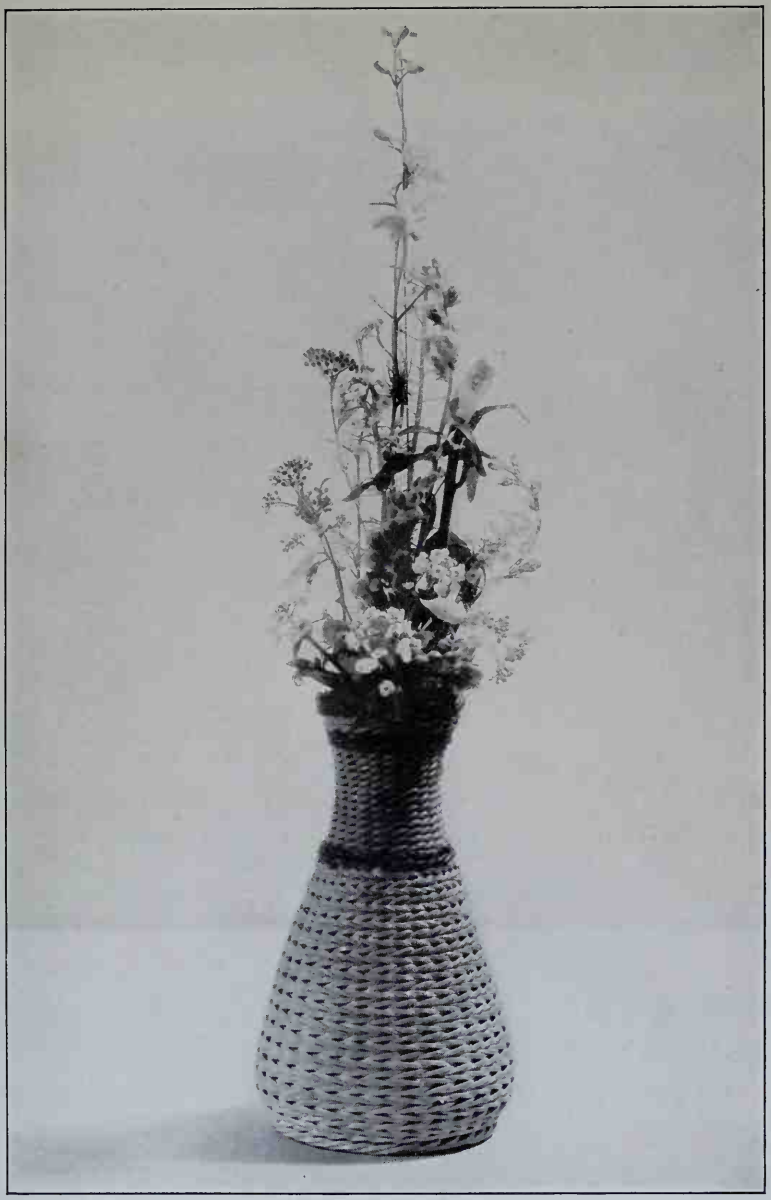


FIG. 24. BUD VASE.

bind as before. Wind the other two as at the beginning of the handle.

Paint the basket white or old ivory, or any desired color.

This same design in smaller reeds makes a very interesting little basket. Use No. 00 for weavers, No. 2 for spokes, and No. 4 for handle. Cut the spokes and handle shorter, and follow the same directions.

BUD VASE

Fig. 24 shows a little bud vase woven over a test-glass. The glass is one inch in diameter at the top, two and one-half at the bottom, and five and one-half in height.

No. 2 reeds are used for spokes, No. 1 for weavers. Cut thirty-two spokes eleven inches long.

The weaving begins above the lower dark row and continues to the top. It is commenced again at the dark row and finished to the bottom.

To begin, double a weaver around a spoke four inches from the top end, add another weaver for triple, weave the spokes as close together as possible, and when all are taken join the weaving around the glass. Weave fourteen rows triple, then three rows triple with alternate rows reversed.

The spokes at this part must be kept very close together, and the weaving the same. It will be found necessary to use the awl to push the weaving up.

Wind off the top by passing one spoke behind two spokes and out, first row; one spoke over three spokes and to the inside, second row.

To begin weaving down, insert three weavers for triple; weave to the bottom; reverse alternate rows. In this, as above, the weaving must be kept very close and the spokes evenly separated.

To wind off at the bottom, pass one spoke behind three spokes and out, first row; one spoke over four spokes and in, last row. The first row must be turned down flat against the bottom of the glass, while the second row forms a roll for the basket to rest on.

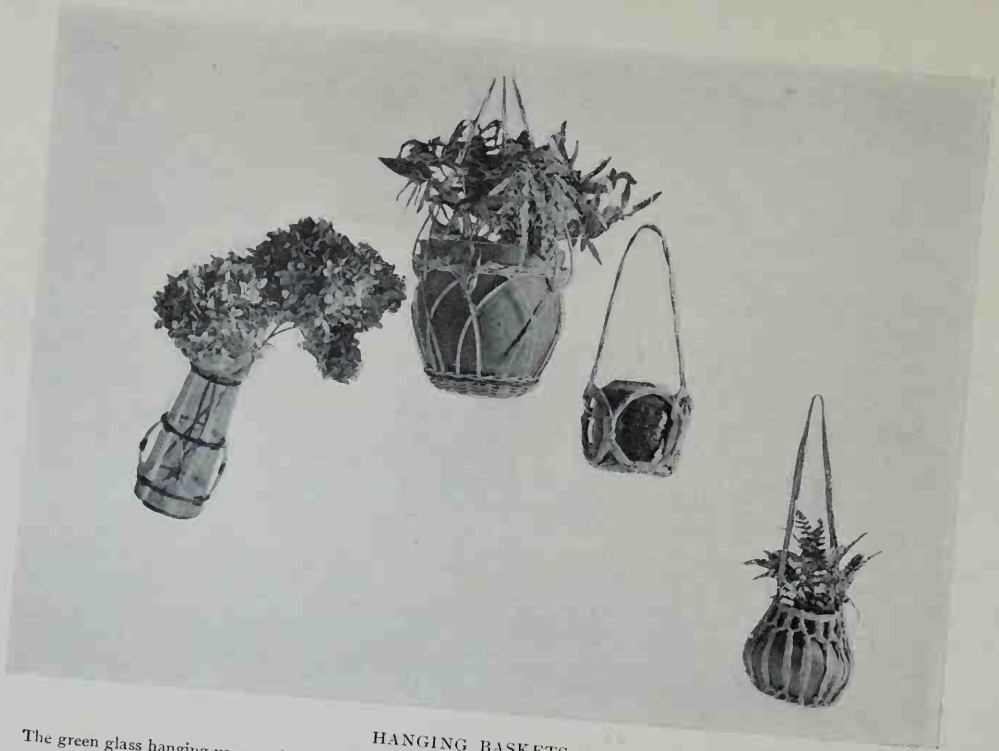
This model is painted. Begin at the bottom with the lightest tone, and gradually add a little of the darker color as the work progresses toward the top. The dark rows are painted with the darkest tone and a little black mixed.

JUST A LITTLE BASKET

Fig. 25 shows a basket which is ideal for holding small and delicate flowers. It is four inches in height, twelve in the largest circumference. In this model the weaving is done over a glass bowl, but may just as easily be done without the glass.

Nos. 0, 3, 4 reeds are used. To begin, cut sixteen spokes, No. 3 reeds, twenty inches long. Use centre No. 4, *d*, Double a No. 0 weaver around any group

FIG. 25. JUST A LITTLE BASKET.



HANGING BASKETS

The green glass hanging vase on the left is for cut flowers. Beside it is a terra-cotta plant jar enclosed with an open weave in rattan. On the right is a brown pottery jar enclosed in heavy rings of rattan, and below it a green pottery jar for ferns has a knotted covering of bleached raffia.

of spokes; weave two rows pairing, one row reversed, around groups of two spokes at the time.

Insert an extra weaver for triple weave; separate the spokes into singles; weave eight rows. Reverse the weave; weave one row. From this point begin to turn the spokes up to give shape to the basket. The whole basket is woven in triple with alternate rows reversed.

The top is finished by passing one spoke behind four and out, first row; and one spoke over five and to the inside, second row.

For the handle cut three No. 4 reeds si[illegible]n inches long. Insert the group of three reeds through the middle openings of the bottom; then bring the ends up and insert them in the border at the top of the basket, with half an inch space between the reeds at the point of insertion.

Next cut two No. 4 reeds eighteen inches long. Insert the ends of the group of two reeds through the opening in the bottom at the side of the middle group of the handle. Bring the reeds up three inches and cross the middle group of the handle, down to the same opening in the bottom on the opposite side, through this and up to the same height, three inches on the handle, and down through the opening in the bottom where the two reeds were first inserted.

Double a No. 0 reed, place the middle where the two parts of the handle cross, pass it around three

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times to bind them together, then cross the winders around the three reeds of the handle for a space of two and one-half inches, at which point the reeds separate, and the outside ones are wound with a single winder up to the top. The winders are then fastened and cut off. The centre reed is not wound. Repeat this on the other side of the basket.

This model is painted a gray-rose blending into lavender. The handles are a darker tone of lavender, or gray-violet.

It is an interesting problem in color to paint baskets with reference to some special flower. Study the color of the buds, the open flowers, the stems and leaves; from this plan a scheme, usually very much softened or grayed; the result will prove a close harmony between flowers and container.

FOR MANY USES

Fig. 26. — This basket measures five inches in diameter at the bottom, twelve inches largest diameter, eight inches in height.

Use No. 1 reeds for beginning the centre and winding the handle, No. 3 for weavers, No. 4 for spokes, and No. 6 for the handle.

Cut sixteen spokes thirty-six inches long. Begin with centre No. 1, eight spokes inserted through eight spokes. Begin with No. 1 weaver, weave pairing around groups of four until the spokes may be easily

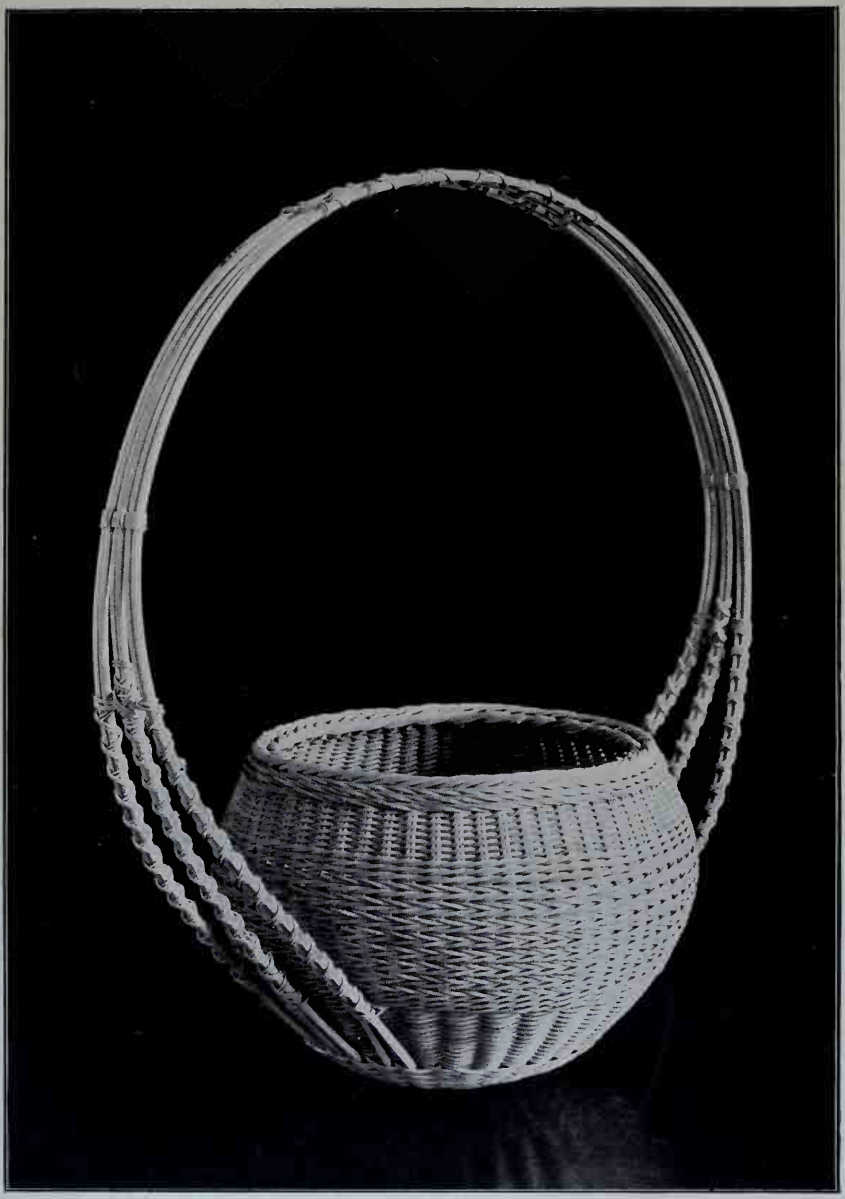

FIG. 26. FOR MANY USES.

separated into twos; then weave until the centre measures three inches in diameter.

Cut out the No. 1 weavers and insert three No. 3 weavers for triple. Weave around the groups of twos until the centre measures five inches in diameter. At this point the spokes are bent up to begin shaping the basket, and are separated into singles. Weave eight rows triple; reverse alternate rows.

Cut thirty-two extra spokes fifteen inches long, and insert one spoke by the side of each spoke; push the extra ones well down into the weaving.

Cut out one weaver; weave thirteen rows pairing. Keep the shape of the basket in mind.

Cut sixty-four extra spokes fourteen inches long; insert two extra spokes in between the spokes of each group of two spokes; push them down below the first two rows of triple, or until the ends do not show in the pairing weave.

Insert an extra weaver for triple; separate the spokes into groups of two; weave three rows triple; then fifteen rows triple with alternate rows reversed; then three rows triple.

Cut out one weaver; weave seven rows pairing. Insert two extra weavers; weave three rows quadruple; cut off the weavers.

Cut off one spoke of every group close to the weaving. To wind off, pass one spoke behind three spokes and out, first row; one spoke over four spokes

and to the inside, second row. Cut off the ends close to the weaving.

The shaping of the basket begins where it is first turned up from the bottom, and is a very gradual curve out to the fullest part and then in to the top.

Handle. — Cut six pieces sixty inches long. Sharpen the ends to a long, flat point, cutting from one side of the reed only. Insert the ends of the six reeds into six consecutive spaces of the eight rows of triple weave at the bottom of the basket, having the cut side next the basket. It will be found in adjusting the reeds that the two middle ones will have to be shortened a little, and as it is almost impossible to measure them so that they will fit exactly right, it is a question of regulating as the work progresses.

To begin winding the handle, select two flexible No. 1 reeds. Begin with the two reeds of the handle at the right, bring them close together at the top of the section of pairing weave, and bind them to the basket by passing the winders around the group of four spokes and from the inside to the outside of the basket; cross them over the two reeds of the handle, pass them back to the inside and out again, then begin winding this section of the handle by crossing the winders around at intervals of half an inch. Wind up to nine inches, pass the winders across the middle section to the left, and wind down the left section to the

FIG. 27. BASKETS OF NO. 00 REEDS, REED AND RAFFIA WITH PINE NEEDLES, RAFFIA COIL.

place of joining, and fasten to the basket. Fasten the winders on the inside of the basket and cut off.

Begin winding the middle section by crossing the winders twice around the two reeds above the point where the reeds are crossed from the right to the left sections; make a crossing around the middle section and enclosing the cross reeds, then continue the winding down to where the handle is bound to the basket the same as the other two sections. This completes this part of the handle. Repeat this on the opposite side of the basket.

Three inches above this winding bring the three sections of the handle close together and wind them around six times with one winder, keeping the winders close together. Pass the right end of the winder up between the right and middle groups, cross over the six winders, pass down through to the back, up through to the outside, and around again and fasten at the back, or inside of the handle. The left end of the winder follows this same course between the left and middle sections of the handle. Repeat this on the opposite side of the handle.

Begin winding the handle at the top eight inches from the last winding. Select two long reeds for this. Find the middle of the winders and place this under the middle section of the handle at the point where the winding is to begin. Pass the right and left ends of the winders up through the corresponding spaces be-

tween the groups. The position of the winders is now under the middle section and on top of the other two. Next, with two winders in each hand bring them down and around the outside groups, up through the spaces, cross them over the middle group of the handle and pass them down through the spaces. This leaves them under the outside groups. Next bring them up and over these groups, pass them down through the spaces, cross them under the middle group and bring them up through the spaces again on top of the outside groups. They are now in the first position, and ready to repeat the movement six times. Fasten and cut off the winders.

This basket, designed to hold almost any kind of long-stemmed flowers, is very satisfactory when painted a creamy white or ivory. Give the basket a very thin coat of color first, allow this to dry hard, then give the second coat. Never have the paint thick; it should flow freely between the reeds.

BASKET OF NO. 00 REEDS

Fig. 27, *a*, shows an interesting type of reed weaving which in form, color, and texture is only slightly suggestive of the ordinary reed technic.

The reeds are dyed before beginning the basket. The weavers are very light yellow, medium, and dark yellow-brown. The spokes are dyed the darker shade of brown.

FIG. 28. SHOWING TRIPLE WEAVE.

The basket measures nine inches at the largest diameter, six inches in height, and six inches in diameter at the top.

Use No. 00 reeds for weavers, No. 4 reeds for spokes.

Cut sixteen spokes thirty inches long. Begin with centre No. 1, insert eight spokes through eight spokes. Double a medium brown weaver around a group of four spokes, weave four rows of pairing weave around groups of fours.

Separate the spokes into groups of twos, weave ten rows pairing.

Separate the spokes into singles, weave the bottom five inches in diameter.

From this point the basket is done in quadruple weave. Insert two extra weavers behind two consecutive spokes; weave four rows. The shaping of the basket begins at this point. The spokes must be very gradually curved up and continue a gradual curve to the largest diameter of the basket; then begin to curve in toward the top. The form is one of the chief charms of the basket. Continue quadruple weave.

After the spokes begin to curve in, the weaving has a tendency to slip up. This can be avoided by tying it down with a small cord, winding the cord around from top to bottom between the spokes. This may be done several times in the course of the work from this point to the finish of the basket. The cord

does not interfere with the work and can be easily cut out after the basket is finished.

The weaving from the centre of the bottom to the dark band measures about seven inches.

To begin the band, cut out the four weavers and insert in their places four dark brown ones; weave five rows.

To begin the light band, cut out three brown weavers and insert in their places three yellow ones; weave five rows.

Cut out the dark weaver and the left one of the yellow ones; insert the one in the place of the other; weave five rows. Again cut out the dark weaver and the left one of the yellow weavers; insert one in the place of the other and continue this until five sections of the brown are woven in the band.

Cut out the three yellow weavers and insert in their places three dark brown ones; weave five rows. This finishes the weaving.

To finish the top, pass one spoke behind two spokes and out, first row; pass one spoke over three spokes and to the inside of the basket, second row. Keep the curve of the basket in finishing off the top.

By using the same number of spokes, cut a little shorter, and weaving the whole basket with the spokes closer together, a very interesting variety is given to this type of work. For instance, in this model the spokes are about one inch apart at the largest diameter.

FIG. 29. TRIPLE WEAVE IN THREE COLORS.

If the spokes are carried in pairs in the bottom to the point where the quadruple weave begins, then separated into singles and kept close enough together to allow one-half to three-quarters of an inch between at the largest diameter of the basket, the weaving kept very close and smooth, a very beautiful basket will more than repay for the time spent in the making.

It will be the same basket on a smaller scale. A still smaller one may be made by using No. 2 reeds for spokes.

In Fig. 27, *d*, is seen a basket of the same type, quadruple weave being used, and the reeds dyed before weaving.

Showing Triple Weave. — Fig. 28 shows a decorative effect in the use of triple weave when one dark and two light weavers are used. (See Fig. 3, *c*.)

Triple Weave in Three Colors. — Fig. 29 shows a basket made in triple weave with three colors, or three tones of the same color. (See Fig. 3, *c*.)

CHAPTER VI

WOOD BEADS IN BASKETRY

THE use of beads as ornaments reaches back into remote antiquity. The list of materials that have gone into the making of them through the ages is a long one, but it has remained for modern machinery to turn millions of beads from wood. Beech, birch, maple and other woods have been used for this purpose. There are beads of every imaginable size and color. Some of them take a high polish, and show the grain of the wood; some are finished with a coat of hard paint. There is a wide range of color from rich, lustrous black and colors of marvellous brilliancy to tints as delicately beautiful as rose petals.

The combination of wood beads and reeds in basketry has many interesting possibilities. There is practically no limit to the color combinations and there is a wide field for originality in design.

There are large beads suitable for fruit baskets and trays, beads of russet browns, of deep orange and rich reds that seem made for just this use. Then there are beads of the richest and gayest colors, ready to be used in baskets, designed to brighten some sombre

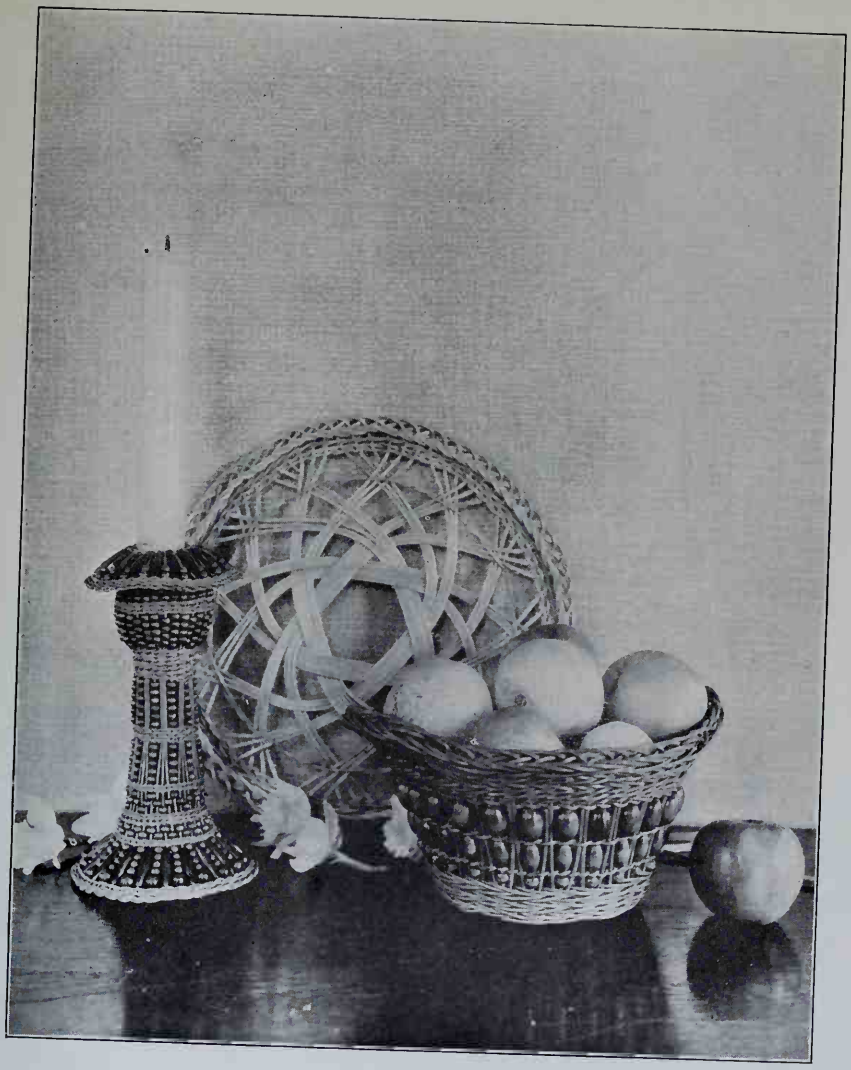

FIG. 30. FRUIT BASKET.

spot about the home. There are jewel-like beads of which the richest designs may be worked into small baskets. Beads are interesting as the ornamental feature of reed lamps, torchieres, and candlesticks.

In this chapter on the use of wood beads in basketry the technic is more or less suggestive. It is difficult to give directions, for instance, for making a lamp base unless the exact measurements of the foundation could be duplicated as well as the exact size of the beads given, etc. Enough is given, however, to enable the basket-maker who has had practice in the fundamentals of reed-weaving to follow some of the models shown, and to create original designs.

Fig. 30 shows a fruit basket which is five and one-half inches in diameter at the bottom, nine at the top, five inches in height, at the lowest place. The weaving is carried up at the sides to form handles.

No. 3 reeds are used for weavers, No. 4 for spokes. There are thirty-six spokes thirty-two inches long. Use Centre No. 3, *b*. Take three spokes at the time from each group. This will make the first row of weaving around six spokes at the time. The next four rows of pairing weave are done around three spokes at the time. This makes the bottom large enough.

Turn the spokes up; insert an extra weaver for triple; weave six rows around three spokes at the time; reverse alternate rows. The small beads, which are round and about one-quarter of an inch in diameter,

are next threaded on the centre spoke of the groups of three spokes each. This leaves two spokes in between each bead. Weave one row of pairing, separating the spokes into singles. The beads of the next row are oval and three-quarters of an inch long. Above the beads weave one row pairing, enclosing the two spokes between the beads in pairs. The beads of the third row are oval and one inch long. Above the beads weave two rows pairing; the second row reversed and enclosing the two spokes between the beads in pairs as in the previous row of weaving.

Insert one extra weaver for triple; weave one row. The handle is not very well shown in the illustration. Begin with any spoke on which the beads are threaded; on this thread two of the small round beads. With a pair of spokes in between, thread two beads on the next spoke to the right, and the same on the spoke to the left of the middle beads. Repeat this on the opposite side of the basket. The next row, triple, is woven above the beads, the two pairs of spokes, one to the right and one to the left of the middle are separated into singles.

Weave one row triple. Thread one round bead on the middle spoke of the handle and one on each of the two spokes to the right and left of this bead, which makes five beads with no spokes in between. Weave two rows triple; reverse the second row. Wind off the top according to closed border, Fig. 13.

FIG. 31. TRAY.

Tray. — Fig. 31 shows a fruit basket or tray in which several sizes of round and oval beads are used. The tray is about ten inches in diameter.

No. 1 reeds are used for weavers, No. 3 for spokes. The tray is started with Centre No. 4, having six groups with five spokes in a group. After the groups are placed they are held in place with one row of pairing weave, which is later cut out. Next weave four rows of pairing weave, the spokes being separated into singles. The oval beads, which are about three-quarters of an inch long, are threaded on alternate spokes. Next thread two small round beads, which are about one-quarter of an inch in diameter, on the other spokes. The oval beads just fill the space between the spokes; this holds one of the small beads a little below and one a little above the oval bead, making two rows of beads on the same spokes and separated by the sides of the oval ones. Then on each spoke all around is threaded another small bead. Two rows of pairing are done, the second one reversed.

The oval and the small beads are threaded in the next row the same as the previous one. The oval beads being larger fill the space between the spokes. Two rows of pairing weave, one of them reversed, and three rows of triple finish the weaving. The tray is finished with a closed border.

The handle is made with No. 4 reeds. It is easily followed from the illustration.

Bead Basket. — In Fig. 32 the basket is made of beads with a rhythmic difference in the sizes. The color of the beads suggests the red lacquer of the Orient, and the basket is woven with No. 0 reeds dyed several tones lighter than the beads. The handle is made of No. 3 reeds wound with No. 0.

Tray. — The tray in Fig. 32 is made of beads of several different tones of gray-green, woven with spokes of No. 2 and weavers of No. 3 reeds of the same color.

Vase. — The vase-like basket in Fig. 32 is woven over glass. The beads are one size, except the long ones in the handle. The spokes and weavers are No. 0 reeds. The beads of the handle are threaded on small copper wire.

Torchère. — Fig. 33 (Frontispiece) shows a torchère, a fern-basket, a vase woven over an ordinary olive bottle, and a little wall basket. These are given to show the possibilities of design in the use of wood beads; the technic is not given.

Boudoir Lamp. — The base of the lamp, Fig. 34, is eleven inches from the bottom to the top of the socket. Five sizes of beads are used. The weaving of the base is easy to follow from the illustration. No. 2 spokes are used, and the spokes the beads are threaded on are No. 00. The weavers are No. 00. The weaving is started below the top row of beads, one spoke at the time without a bead, and the next one with a bead.

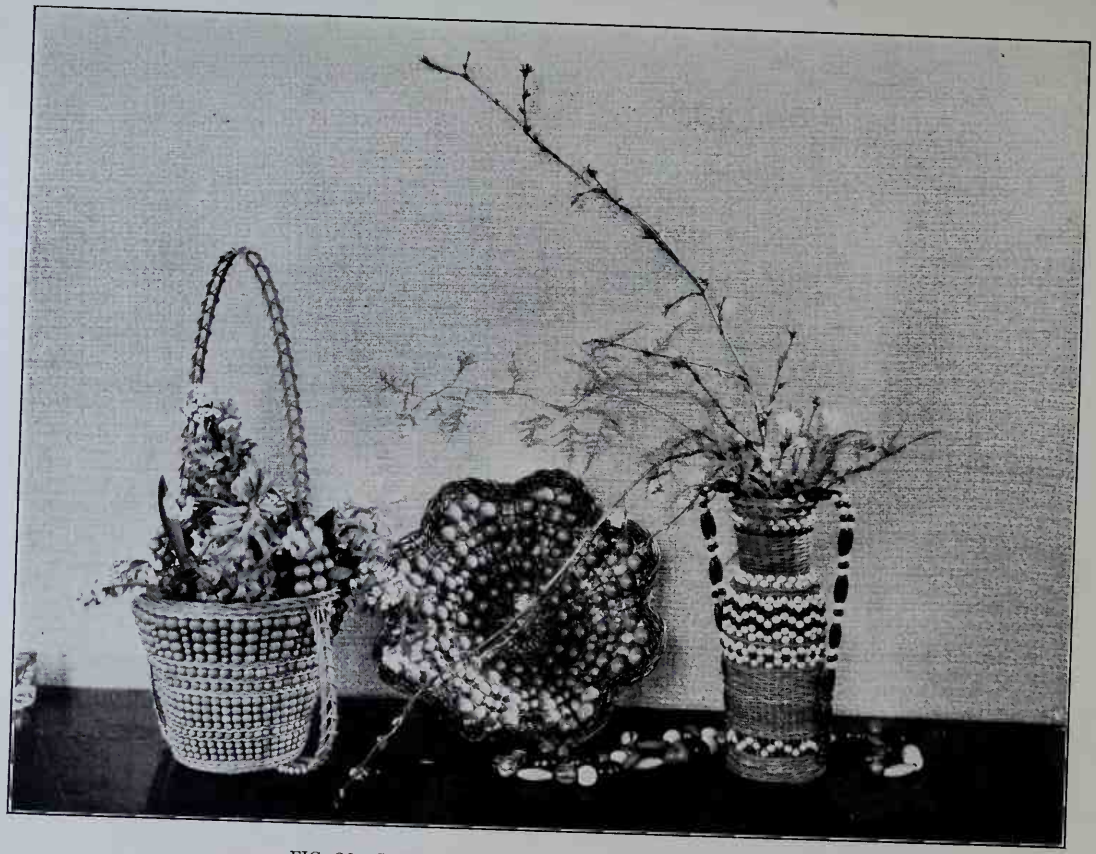

FIG. 32. REED BASKET, TRAY, VASE-LIKE BASKET.

One row of pairing is done; the work must fit closely around the wood base or foundation.

Leave this row of weaving for a time and weave pairing weave to the top, finishing the top, which is carried to the bottom of the socket, with a closed border. Next insert one extra weaver for triple and weave, reversing alternate rows, down to the small part of the base. Insert one extra weaver for quadruple; weave one row. This makes the roll just above the space of pairing weave. Cut out two weavers; weave the space of pairing; insert an extra weaver for quadruple; weave one row. This space of pairing weave is done over the No. 2 spokes, the others being carried along under the weaving.

There is one row of pairing between the rows of beads. All the weaving below the beads is triple. Extra spokes of No. 2 reeds are inserted between the bottom row of beads. The base is finished at the bottom with a closed border.

The shade measures seven inches in diameter at the bottom, and nine inches from the bottom edge to the centre. There are thirty-six spokes thirty inches long. The shade is started with Centre No. 3, *b*, having nine spokes to the group. Begin the weaving with one spoke from each group; weave two rows pairing, the second row reversed. The beauty of this shade depends upon the even spacing. The top is rounded from the centre. For the method of ending

the weaving where two rows of pairing are used, see *a* in Fig. 5.

Begin the next row one-half inch below the first; weave two rows pairing, the second row reversed. Cut eighteen spokes of No. 00 reed twice the length of the other spokes from this point down. Double these spokes, and, in weaving the third row of pairing in this space, put the doubled end behind the pair of spokes and weave in these No. 00 spokes so there will be one between each pair of No. 2 spokes. This is because the No. 2 reeds are too large for this size bead. The weaving is easily followed from this point. The shade is finished at the bottom with the open border shown in Fig. 14.

The shade is held by the ordinary wire fixture that slips over an electric bulb.

Floor Lamp. — In the shade, standard, and "pulls" of the lamp shown in Fig. 35, wood beads form a feature of the decoration. They are threaded on the spokes of the standard, forming bands in the spacing of the weaves. They are threaded on alternate spokes in the small part of the shade and lower down, near the band of open weave. The band of open weave shows the use of the weave shown in Fig. 8, *c*. The pulls are made of a twist of very small beads, finished at the ends with tassels made of beads of several sizes.

A few points to be remembered: Wood beads must be kept dry during the process of making a basket;

FIG. 34. BOUDOIR LAMP.

if allowed to absorb water they will crack. When reeds of a different color from the beads are to be used, dye the reeds before beginning the work. Wood beads take paint easily; any painted effect may be worked out after the basket is finished.

In the use of wood beads be conservative; be sure that the size of the beads and the design planned are in harmony with the size of the basket and the use for which it is created.

CHAPTER VII

REED AND RAFFIA BASKETS

THERE are two distinct functional structures or types of technic in basketry, namely, the hand-woven basketry, which is built on a warp foundation, and the sewed or coiled basketry, which is built on a foundation of rods, or splints, or straws, grasses, raffia, etc. To the first type belongs the reed-weaving, in all its variations, shown in the previous chapters. The second type is represented in our modern basketry by the various kinds of grass, pine-needle, raffia-coil, reed and raffia, and any material that is sewed with a needle.

There are many stitches used in making coiled baskets. Some of them are stitches used by Indian basket-makers, others are adapted from Indian stitches.

In all the coiled baskets the centre is started with the same kind of button, as it is called. This is formed by wrapping the material, which is to form the coil, with the sewing material, and then coiling the wrapped part around to form a small circle, or button, which is the foundation for the different kinds of coil stitches.

The baskets shown in Fig. 36 illustrate some of the coil stitches which are used by modern basket-makers.

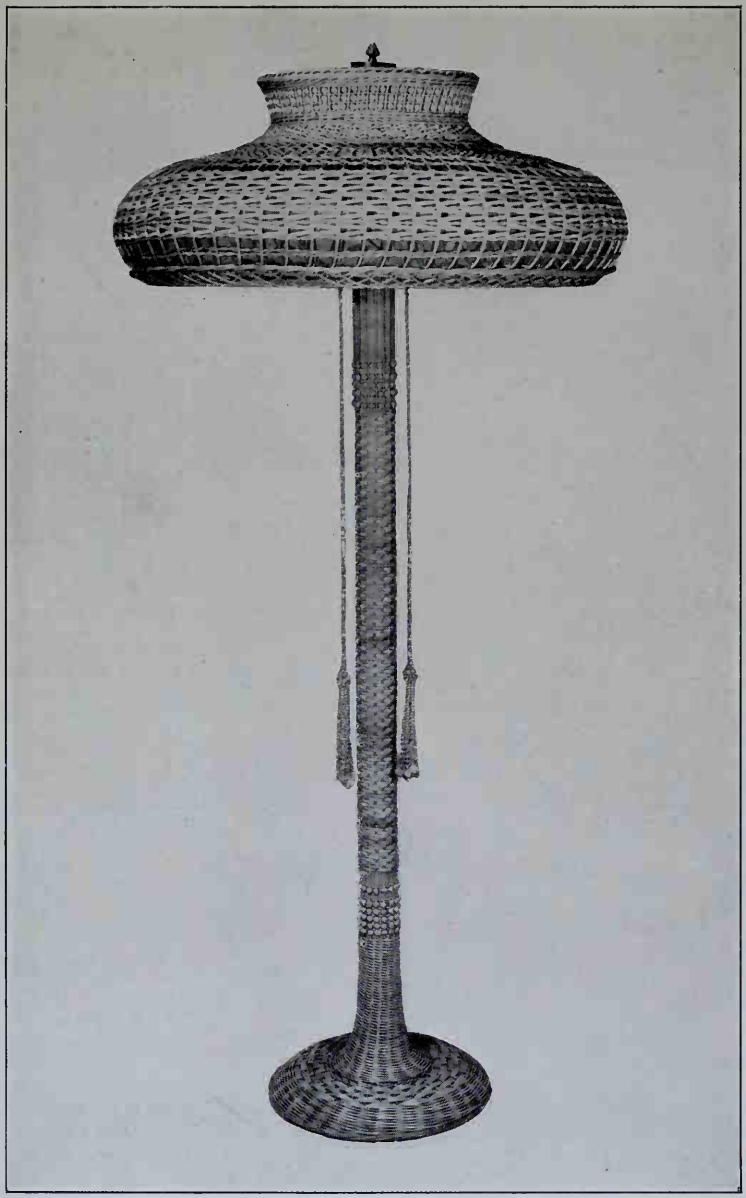

FIG. 35. FLOOR LAMP.

In the lace, or knot-stitch basket (*a*), the materials used are a reed for the coil and raffia for sewing. The design in this basket is taken from an ancient Peruvian textile. The technic of this stitch will be given later in this chapter.

The raffia coil basket (*b*) is made in the Hopi stitch as used by the Indians. It is necessary for this to have a soft inner coil, because the stitch is taken into a little of the coil material. The button is made as previously described. The outer coil is wrapped once from back to front with the raffia, the needle is thrust through the upper part of the coil below, taking up just enough of the coil to hold the stitch. The raffia is pulled through, and the outer coil is wrapped again, and so continued to the finish of the basket. In finishing, the coil is allowed to run out by cutting out some of the raffia in the centre of the coil; make several stitches; cut out more raffia until the coil is worked down and gradually bound in with the lower coil. The points to be remembered are: To keep the coil a uniform size; to be sure to cover the coil with the raffia; and to make the coil firm enough to remain round when the basket is finished. A soft, flat coil does not make a satisfactory basket. It is very easy to work designs in this stitch, as the lines may be kept very clear and distinct, which is not the case with many stitches.

In the little grass basket (*c*) is shown the coil

stitch, which is used in making baskets of pine-needles, grasses, and combinations of various materials. This stitch is described in the chapter on pine-needle technic.

The raffia coil basket (*d*) is a specimen of the lazy stitch, as it is generally called. This is an Indian stitch which is varied in several ways by modern workers. In the basket shown the outer coil is wrapped around several times with the sewing material, from back to front, the needle is thrust through the inner coil to bind the two coils together; the outer coil is again wrapped, and so continued to the finish of the basket. Another variation of this stitch is shown in the decorative band in (*e*), using a reed for the coil. The raffia is wrapped once around the outer coil, then once around the outer and inner coils together, thus making a short and a long stitch. Other variations are made by taking two short and two long, three short and one long, etc.

The three rows at the top and bottom of (*e*) are made in the figure 8 stitch, sometimes called the Navaho stitch, though it is the invention of a white basket-maker. The finished work is very similar in appearance to the Hopi stitch, but in making the figure 8 the sewing material is passed around each coil twice. It is carried over the outer coil from front to back, then up through to the front between the outer and inner coils, down over the inner coil, through to

FIG. 36. COIL STITCH BASKET.

the back between the inner coil and the one below, up to the front between the outer and inner coils, and then over the outer coil to the back again, thus making the figure 8. In making designs for this stitch it must be remembered that the color shows on the inner as well as the outer coil.

The above are some of the coil stitches; there are others, and there are many combinations of these effectively used by basket-makers, in using different materials in the same basket.

The Lace Stitch. — In all the stitches where reed is the foundation of the coil, the button is made as follows: Sharpen the reed to a long point, two inches for small reeds, three for large ones. Hold the pointed end of the reed in the left hand with the piece of raffia lengthwise of the reed, and held under the thumb. Begin an inch from the pointed end and wind the strand of raffia evenly and tightly to the point, being careful to cover the reed entirely with the raffia. Bend the point back to form a small circle, and fasten the pointed end in this position by taking two stitches around the outer reed and the point. Hold the coil in the left hand, wind the raffia once around the reed, bring it from the back over the top of the reed toward the body, and pass the needle through the centre of the coil, thus making one long stitch on the top. Bring the raffia around the coil and the reed from back to front, and pass it down between the reed and the coil

at the left of the stitch. Next insert the needle up from the back between the coils and at the right of the stitch, pull the raffia through, cross it over the long stitch and pass it down at the left of the stitch between the coil and the reed. This completes one knot. Wrap the reed with the raffia two or three times, according to the desired space between the knots, being careful not to twist the raffia.

This point should be remembered: that the work is very much smoother if the raffia is wound around flat and never allowed to twist. Also be sure to cover the reed well in wrapping the raffia. Next insert the needle through the centre of the coil, pull the raffia through, and bring it over the coil and the reed from back to front, carry it down between the reed and the coil at the left of the stitch. Insert the needle up from the back between the coils at the right of the long unfinished stitch, pull the raffia through and cross it over the stitch, pass it down between the coil and the reed at the left of the stitch. It is now ready to wrap the reed two or three times again. This completes the second knot. Continue this until one round has been made. In the succeeding rounds the needle is inserted in the open spaces between the coils and between the knots. As the work progresses keep the knots the same distance apart. To do this it will be necessary at times to make two stitches, or knots, in the same space.

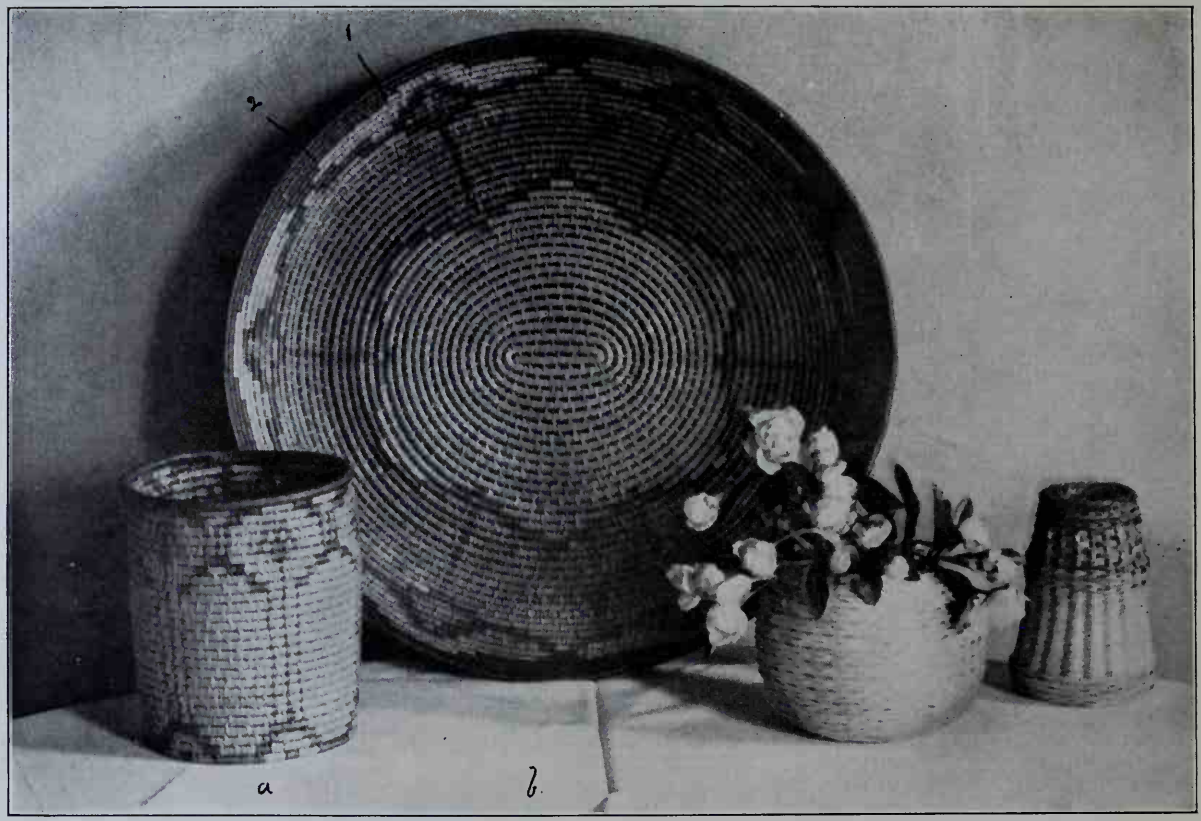

FIG. 37. TWO LACE STITCH BASKETS.

When a design of one or more colors is introduced, fill the required space with color, making the knots as usual. The colors that are not being used are wrapped in with the reed and at the back of the reed.

Fig. 37, *a*, shows a lace-stitch basket, four and one-half inches in diameter, five and one-half inches in height.

No. 5 reed is used. There are seven shades of raffia, three tones of rose, and two gray-greens in the design at the top, a soft gray-blue in the lower part of the basket, and black.

There are six repeats of the design.

The basket is started with the button, as described above, and the lace stitch is continued for ten rounds. On the eleventh round the design is started.

To begin the design, mark off on the tenth round six points for the beginning of the six repeats. With the gray-blue of which the bottom has been made, make a knot by the first point, then begin with the black and wrap a space of one-quarter of an inch. This is the beginning of the eleventh round. Make a knot with the gray-blue and wrap three-eighths of an inch, make a knot at the end of this space. Wrap one inch with the black, and do not make a knot in this space. Wrap three-eighths of an inch with gray-blue, making two knots as before, then wrap one-quarter of an inch with black, which begins the next repeat of the design. Continue this until the eleventh round has

been finished. This is the part of the design that shows as the bottom round of the basket. The measurements are given as worked out in this model. It is best to make the spaces for one repeat before carrying the work too far, as it is not an easy matter to make a coil basket work out the exact size of the model.

The next round turns up. From this point the design may be easily followed from Fig. 37, *a*. Be careful to keep the design clear, that is, knot the blue into blue, and the black into black.

On the nineteenth round from the bottom the design begins. The black outlines the light-rose figure. The two darker tones of rose and the two gray-greens are worked into the centre of the rose figure. The middle line of black runs up into the figure. The gray-blue is carried to the top between the figures, a line of black runs through this space of gray-blue. The top row is black. If the design is evenly spaced at the bottom, and the black lines are carried up straight, the figure at the top is easily worked out.

To finish the last round, cut the reed on the under side to a long flat point, about three inches, allowing it to overlap the black of the top round about one inch. Continue the knots to about one inch from the end, and from this point bind the end of the reed in with the coil below without knotting. Fasten and cut off the raffia.

Lace-Stitch Tray. — Fig. 37, *b*, shows a lace-stitch basket or tray which is made of No. 5 reeds. The centre is started as follows: Select a very soft reed; cut the end just a very little smaller, for about one-quarter of an inch back, so that when the raffia is wrapped around several times the reed will not be larger at the end than elsewhere. Lay the raffia on the reed with the end two inches back from the end of the reed. Hold the reed in the left hand; hold the raffia on the reed with the thumb.

Begin to wind the reed from the end, and wind back two inches; carry the raffia around from back to front. Be sure to cover the reed well with the raffia.

Next, two inches from the end, bend the end around from right to left, having the end next the body, and making a close, round curve so that the short end and the free end of the reed will be parallel. Wind the curve so that it will be entirely covered with raffia, and wind about one-quarter of an inch past the curve, that is, just far enough to make the first stitch. Carry the raffia around the short end and make the knots between the two reeds. Make six knots, the last one very close to the end. Curve the reed carefully around the end of the short piece, winding the raffia around until the reeds are parallel again, then make the next stitch very close to the end and continue as before. Be careful to make the curves the same at each end. The knots in the centre of this tray are about one-quarter of

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an inch apart. After the design begins, the distance between the knots varies.

A design of this kind has to be carefully thought out so that one color is not overlapped or knotted into another. This is to be remembered: Always plan the colors so that lines of the design may be kept clear; for instance, in the design of this tray, near the outer edge, there are long lines of light and dark coming together. It would not do for knots of the dark to be made into the light. In spaces of this length, two inches in this tray, between the figures 1 and 2, the light is knotted into the light, then the reed between these two points is wound by the dark color without knotting until the point 2 is reached, when the dark is knotted into the dark. The colors that are not being used are carried behind the reed and bound in with the color that is being used until they are again needed.

There are five colors in this design: very light yellow in the centre and in the figure near the edge of the tray; soft yellow-green in the band between green lines; rose in the centre of the figure, and darker green around the edge of the tray.

The design may be followed from the illustration. Finish the end of the reed as previously described.

See Fig. 36, *a*, for a very simple but effective lace stitch design.

Small baskets made on Nos. 2, 3, and 4 reeds are

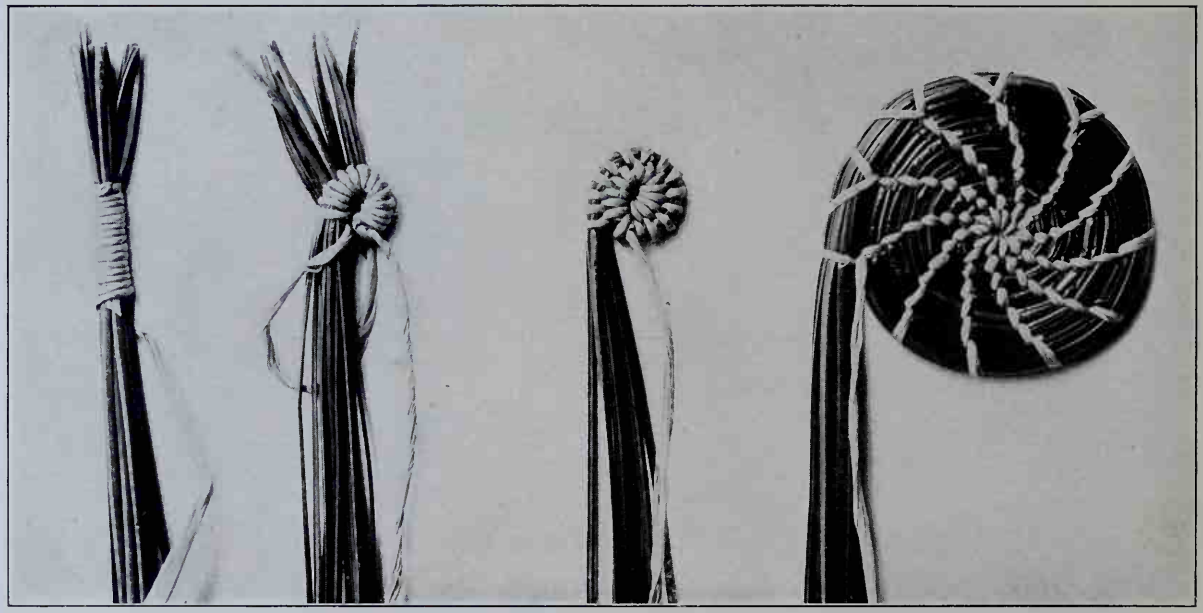

FIG. 38. COIL STITCH.

very interesting. The small reeds are also easier to handle.

This stitch lends itself to very elaborate design, but here, as in all other crafts, a knowledge of color and space relations is essential to good work.

CHAPTER VIII

PINE-NEEDLE BASKETRY

THE list of materials that have been successfully used in basket-making in America is a long one. The native materials vary according to the locality of the worker, and types of baskets have been evolved to conform to the nature of the materials used.

Willow, cane, hickory, and white-oak splints, honeysuckle vines, innumerable grasses, rushes, straw, cornshucks and fodder, various barks and fibres, yucca, palm, stems of wild maidenhair fern, etc., have been used in the making and ornamentation of various kinds of baskets. All these take more or less time and work in preparation before they are ready to go into the basket.

In the above list is not mentioned the long-leaf pine-needle, a material ready for use with practically no preparation, and the supply of which is almost inexhaustible.

The long-leaf pine, the botanical name of which is *pinus palustris*, is variously known as the long-leaf pine, the Georgia pine, the Southern pine, the yellow pine, the pitch pine, etc.

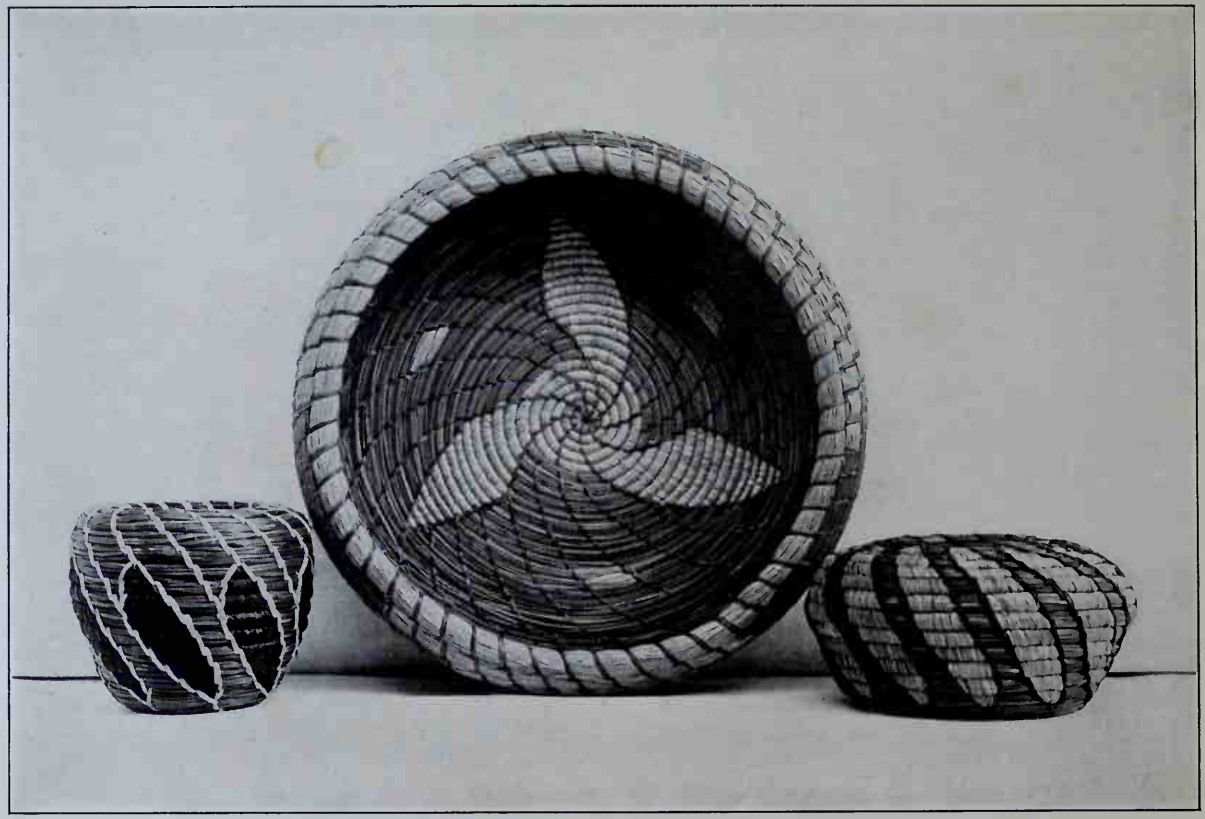

FIG. 39. SHOWING THE USE OF RAFFIA BETWEEN THE EXTRA STITCHES.

Its stately grandeur is limned upon the landscape from the southern frontier of Virginia to the savannas bordering the Gulf of Mexico, and from the Atlantic to the Rio Grande.

What untold wealth of material for the basket-maker lies ready for the gathering under all these glorious trees, materials ready to be woven into the enduring expressions of beauty which the pine-needle baskets represent!

Under the pine-trees at any season there is an abundant supply of brown needles ready for use, but in the autumn they are at their very best. It is then that they fall fully matured, the surface is hard and glossy, the color a rich brown.

Another source of supply is often found where pine-trees have been cut and the needles have browned and dried on the limbs. There can be found an almost unbelievable variety of browns.

In the bud, at the end of the limbs, in the spring and early summer there are young and tender needles from four to six inches long which often dry a light yellow-brown, almost as light and quite as beautiful as old ivory. From this light tint the tones run through yellow-browns to the deep, rich shades and sometimes, by probably a caprice of Nature, there will be found tones as deep as old mahogany. What greater inspiration could an artist-craftsman desire?

When the green needles are to be cured brown they

should be spread out in the sun to dry. The hot summer sun changes the color and dries the needles ready for use in a week or two. Dry, hot weather works like magic. Watch the needles as the color changes, and when the desired tone is reached place them in the shade or dark to finish drying. The color will not change after they are placed in the dark.

The well-matured needles turn a darker brown than the younger ones. The very young needles of the seedlings, or "baby pines," dry almost like grass, soft in texture and with very little gloss. Making use of these conditions will give the basket-maker the greatest variety of browns.

There is no special season for gathering the pine-needles that are to be cured green. There is a difference, however, in the texture of the needles according to the time they are gathered. The old and well-matured ones have a hard surface, and dry with more gloss than the tender growth of spring, and the color is richer, as in the case of the brown needles.

When the needles are to be dried green either they are pulled from the limbs and spread out in the shade to dry, or the limbs are broken any convenient length and the needles left on while drying. The latter method takes longer for the needles to dry.

When dried in the dark the needles will be a soft green, but it is not a permanent color. Exposure to the ordinary light of the home will, in time, change the

FIG. 40. PINE-NEEDLE BASKETS.

green basket to a brown one. For this reason the sewing material should be chosen with care. There are greens in sewing materials ranging from soft, light tints to dark, rich shades which combine harmoniously with the greens of the needles. The effect is charming for a time, but as the needles gradually turn brown while the color of the sewing materials generally remains the same, it is easily seen that disappointment is in store for the lover of perfect harmony. It is possible to avoid this by selecting colors with enough yellow to blend with both green and brown.

There are basket-makers who use all kinds of colors with pine-needles, ignoring the simplest laws of harmony. Blue, orange, purple, the greenest green and the reddest red, all go into covering the beautiful color and texture of the pine-needles. The same basket-maker would probably shudder at the same amount of crude color in dress. It would be interesting to know why.

In designing baskets the first thought should be to show the beauty of the needles. This cannot be done if the whole surface of the basket is covered with raffia. There are various stitches used now by basket-makers which will not be shown in this technic. They are the type, mentioned above, that cover the needles almost entirely. The work when finished is a raffia-covered basket, and has far less charm and interest than other kinds of baskets in which the raffia is the

first consideration. The keynote of design in pine-needle basketry should be simplicity. For this reason, when one desires a gaily-colored basket, or one elaborate in design, it is better to select some other materials rather than spoil the charm of the pine-needle basket by using too much color in the sewing.

There may be used in the decoration of pine-needle baskets various grasses, manilla or hemp, raffia, corn-husks, yucca, the stems of wild maidenhair fern, and the long leaves or fodder of the sorghum cane which is used for forage and for making molasses. Of all the ornamental materials the latter is the most beautiful in color, and is ideal in texture. It is easily obtained, as it grows everywhere in the South.

In the early summer the leaves of the sorghum-cane begin to change color, and from this time until it is killed by frost it may be gathered and spread out in the shade to dry. By watching the colors as they appear, and gathering the leaves at different times, one may secure the greatest variety of tones. In the leaves can be found the softest colors as well as yellows, oranges, browns, reds, and violets that rival the most brilliant paints and dyes.

The pine-needles grow in clusters of three in a sheath, the end of which is cut off and the needles slipped out.

The needles must be worked damp enough to be pliable. As they must not be allowed to absorb too

FIG. 41. SHOWING BAND OF FODDER.

much water, it is best to place a few in cold water at the time; let them remain about ten minutes, then dry them with a soft cloth. This also serves the purpose of cleansing them. The needles are then wrapped in a damp cloth or paper, and so kept while they are being used.

In sewing the baskets, raffia will be the material described in this technic, though hemp and thread are sometimes used.

COIL STITCH

To begin the coil stitch, as shown in Fig. 38, a small roll of pine-needles, ten or twelve needles, is wrapped with the raffia and coiled upon itself to form the button, as it is called, which is the centre of the basket.

Thread a pointed raffia needle with the stem, or large end, of the raffia in the needle. Tie the raffia around the roll of needles an inch from the sheath end, then holding the needles in the left hand wind the raffia around twelve to fifteen times, as shown in Fig. 38. This wrapped part of the needles must be very carefully coiled upon itself by bringing the short end underneath and passing the free end toward the left.

Next, pass the thread over the top of the coil and insert the sewing-needle diagonally under the first round of the winding raffia; let the point of the needle come through the coil and very close to the left of this round

of raffia. This forms the first stitch. The sewing is continued in this way until each round of the winding raffia has been taken up. The sewing is then continued, round after round, care being taken to insert the needle well into the coil, letting the point come through very close to the left of each stitch.

Each stitch must be tightly drawn and held in place with the finger while the next is being taken. This is very necessary to insure the firmness of the finished product.

Care must be taken from the first to space the stitches evenly, as it is difficult later on in the work to correct any irregularity. The lines of sewing radiating from the centre form an important decorative feature of the basket.

After the third or fourth round, when it becomes necessary to insert pine-needles in order to enlarge and keep the coil of uniform size, open the free end of the coil close to the last stitch and insert the sheath end of two or three needles, pushing them well back into the coil, and being careful that the ends do not show on the surface of the coil.

Insert the pine-needles so that the smooth or polished side is toward the outside of the basket.

The coil must never be twisted; it must be held so that the needles lie flat and straight around the basket. This is one test of good workmanship.

The strands of raffia must be kept the same size;

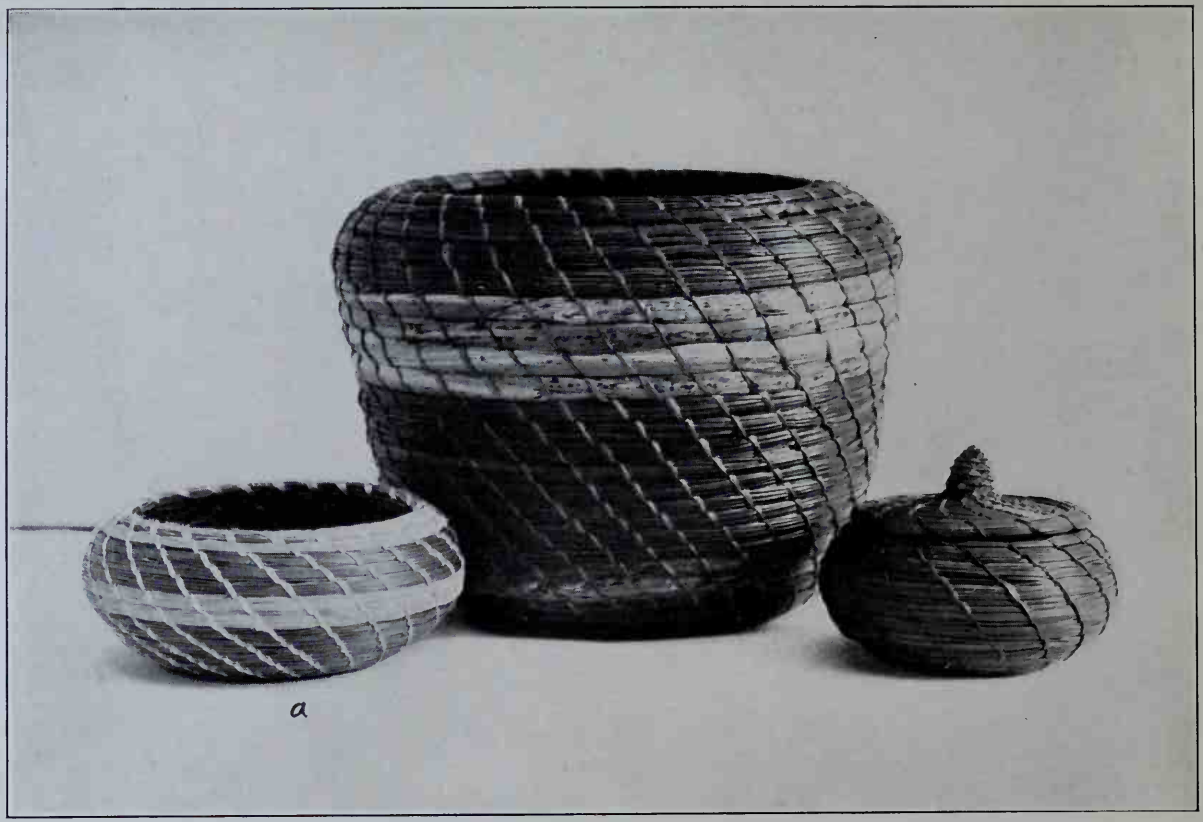

FIG. 42. PINE-NEEDLE BASKETS, GRASS BASKET.

any unevenness mars the beauty of the radiating lines of sewing. Do not twist the raffia into a hard roll or twist.

To add new raffia, leave the ends, about three inches, of the old and the new strands on the inside of basket and sew these in with the coil.

In making large baskets it becomes necessary to add extra stitches. This should be done either in the bottom of the basket or on the round where the basket begins to turn up. When a band of contrasting color is to be worked in, the extra stitches may be started on the first round of the band.

This extra stitch is made by taking two stitches in the same place in the following manner: Take a stitch in the usual way, only instead of drawing it to the left, as the raffia is drawn around the coil, pull the stitch as far as possible to the right, toward the preceding stitch. The next stitch comes in the same place as that just taken, except that the point of the needle is inserted through the coil close to the right instead of the left of the stitch. This stitch is drawn to the left as far as the last one was to the right. This is continued around the basket. (Fig. 38.)

The space between these two stitches gradually widens as the work progresses. This may be taken advantage of as a decorative feature by wrapping the coil in this space with raffia of a contrasting tone. The wrapping begins when the first of the two stitches is

taken. One strand of raffia is wrapped smoothly around the coil two or three times; it is then passed over the top of the coil and to the inside of the basket, until the next, or extra, stitch is taken. (Figs. 39 and 40, Star Tray.) The design may be varied by wrapping every third space, making different proportions of light and dark, or there may be used two tones of raffia, thus varying the color scheme. (Figs. 39 and 40.)

In the use of sorghum fodder its texture does not allow the design to follow anything but straight lines. The spaces may be broken into areas of different size and shape, but the fodder must follow the straight-around direction of the coil.

The fodder must be worked slightly damp, the quantity to be used being sprinkled with cold water and rolled in paper or a cloth a few minutes before using. If kept damp too long it loses its rich color.

To begin, a piece of the fodder is placed along the outside of the coil, the larger end being placed over the top of the coil close to the last stitch taken, and then carried over to the inside of the basket. One stitch is taken to hold the end firmly in place; the edges of the fodder are next folded around the coil. The sewing is then continued until the band is the desired width, when the fodder is passed under the coil to the inside of the basket and cut off, the pine-needles being brought again to the surface. (Figs. 41 and 42, *a*, Grass Basket.)

When the basket is large enough, let the coil run

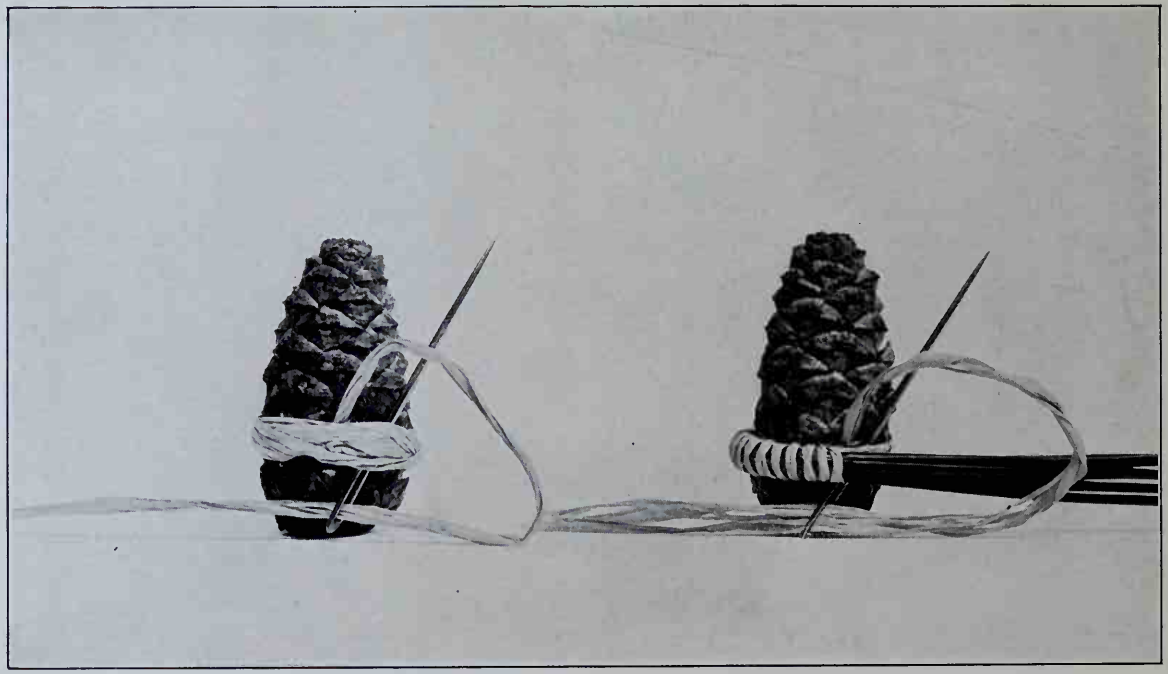

FIG. 43. PINE CONE FOR HANDLE.

out by cutting out about a third of the needles from the inside of the coil, take a stitch, cut out a few more needles, take another stitch, cut off the remaining needles, sew the end of the coil firmly down inside the basket and finish the edge smoothly. Make the outline perfect.

The pine cone may be effectively used in the centre of the basket-lid or cover as a handle.

The cones may be gathered green and spread out in the sun or shade to dry, or they may be gathered dry in the autumn before they are too widely open.

To begin the cover, Fig. 43, wrap one strand of raffia very tightly around the larger end of the cone as many times as necessary to form the beginning of the coil. Then, taking a coil of pine needles, the size of that used in the basket, begin to sew this to the raffia coil by passing the sewing needle under the wrapping of raffia and taking the stitches close together. The sewing is continued until the coil of pine-needles is carried around the cone, then the stitches are taken in the usual way.

In making small baskets it is well to count the rows of stitches around the top of the basket and start the cover with the same number; then the radiating lines of sewing form the same number of double curves from the centre of the bottom of the basket to the centre of the cover.

The simplest cover is one that fits flat on the top

of the basket, but is not very satisfactory unless fastened to the basket. Another kind is made large enough to fit over the top of the basket. A third kind is made to fit into the basket, and may be made for baskets of any shape. In making this cover the work is continued until the cover is one round smaller than the opening of the basket. The coil is then turned down at a right angle, and three rounds made, after which it is ended in the same way as the basket is finished; that is, by allowing the coil to run out, as described above. This part of the cover must fit loosely into the basket. Next, one round of coil is stitched to the cover at the top of these three rounds, the sewing being commenced where the first round turns down. This forms a ledge to keep the cover from slipping into the basket. In sewing on this round the stitches are so placed that the radiating lines of sewing are continued, allowing the cover to present a regular surface from centre to edge. The coil is made to run out and the edge finished in the usual way.

In basketry, as in every other form of handcraft, a knowledge of the fundamental principles of design leads to greater freedom of expression.

After mastering the difficulties of handling materials the attention will naturally be turned to developing skill in securing good form, with which will come a desire for variety of design and color.

The finished pine-needle basket should bring to the

FIG. 44. ARROW STITCH.

beholder a sense of satisfaction and completeness, with no desire to change form or ornamentation, or to vary any of the tone relations.

ARROW STITCH

Fig. 44 shows a pine-needle stitch which has been adapted from an Indian stitch. It has been given various names by basket-makers, such as the pine-basket stitch, the arrow stitch, etc. The latter will be used in this technic.

Baskets of any size may be made in this stitch, but it is especially useful in making large baskets where a large coil is carried, and where strength is required because it is really a double stitch, the raffia being carried around the coils twice in the same place.

For the arrow stitch make the same beginning as the coil stitch shown in Fig. 38, that is, the first row, or the button, is made the same, with the exception that the coil is not drawn quite so closely together in the centre. It is necessary to leave a little room in the very centre for the next row of stitches to pass through; also make the coil a little smaller.

To begin the foundation for the arrow stitch, after the button is made, pass the needle from the under side of the work up through the opening in the centre of the button, pull the raffia through and carry it entirely around the coil of the button and the loose coil of needles and pass the needle once more from the

under side up through the opening in the centre of the button. Pull the raffia tight to hold the stitch in place. This makes a long stitch both on the top and on the under side. Carry the raffia over again, by the side of the long stitch, and bring it up from back to front between the button and the loose coil. There are now two long stitches over the top, and the raffia is at the left of them. Insert the needle between the coils at the right of the long stitches, pull the raffia through to the back and draw it tight. This finishes one stitch. Continue this until one round has been made.

The stitches in this first round may be very close together, or a little space may be left in between the stitches, according to the design of the basket. This round is the foundation for the arrow stitch, and it is very necessary that these first stitches be evenly spaced, as it is difficult to correct any irregularity later on in the work.

The number of rows of stitches should be decided upon before beginning the foundation round, as the extra stitches must be added uniformly; one, two, or more for each row.

The next round begins the arrow stitch. Insert the needle in the under side of the work between the coils at the left of the first stitch of the foundation round. Pull the raffia through and carry it over the sewed coil and the loose coil to the back; hold it in place with

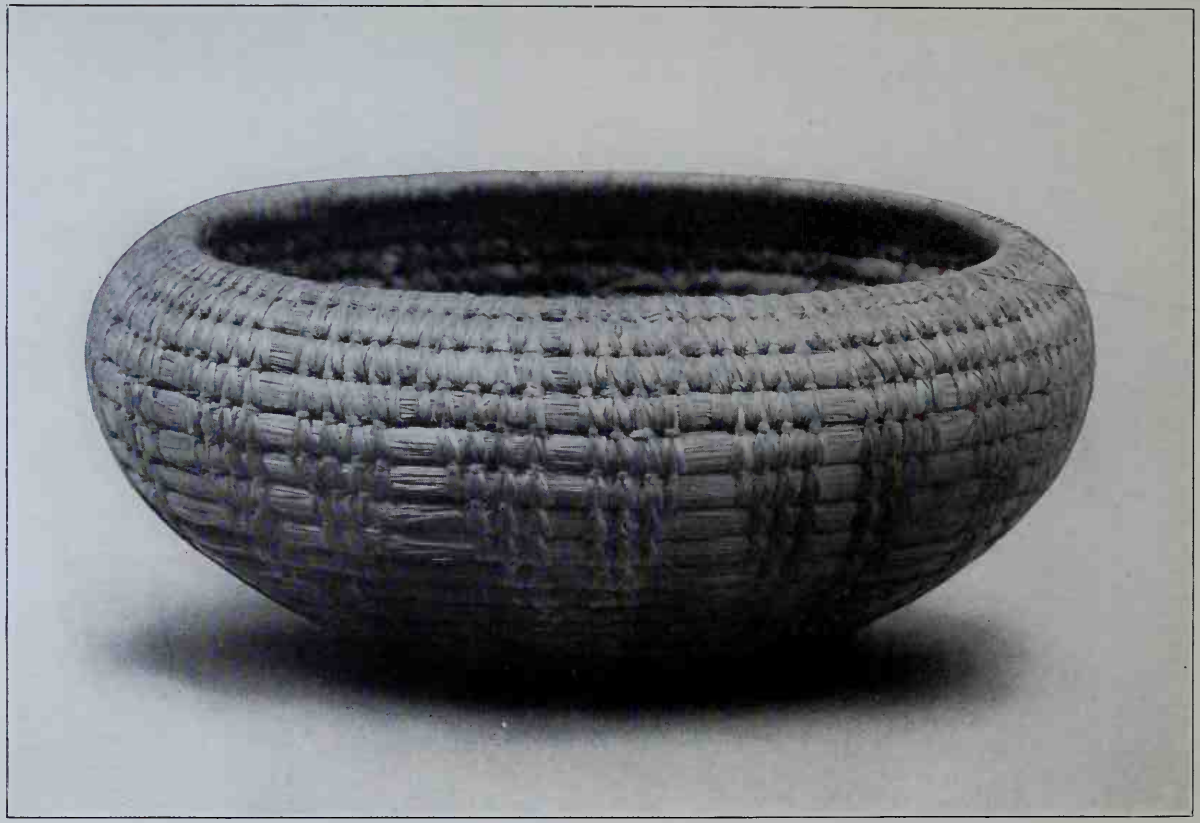

FIG. 45. BASKET MADE OF PIASSAVA.

the left fingers until the needles of the loose coil are regulated, and the spacing right. Insert the needle through from the under side between the coils and at the right of this same first stitch; pull the raffia through and draw it tight. Carry it over the coils to the back again, and bring it up to the front at the left of the unfinished stitch, between the coil and the loose coil of needles. This makes two long stitches on the upper surface of the work. Insert the needle between the coils, and at the right of these two long stitches, pull the raffia through to the back, and draw the cross-stitch tight. This completes the first arrow stitch.

Insert the needle at the left of the next foundation stitch for the beginning of the second arrow stitch, and continue the stitch as before. This is continued round after round until the basket is finished.

To add new needles to the coil, to add new raffia, and to finish off at the top, see the technic for the coil stitch.

There are many ways of giving variety to the work in using this stitch. Single rows of stitches may be carried all the way; this gives even spacing. Double rows of stitches may be carried close together, having the space between the double rows either narrower or wider than the width of the double rows. This gives variety to the spacing. Two tones of raffia may be used, having alternate rows light, or dark, or two light and two dark, etc. Figs 44 and 45 show another

method of giving variety to the work. In addition to this is the question of color, which must be used with the same discretion as mentioned in the technic of the coil stitch.

Always plan the design so that the extra stitch may be added on the bottom of the basket, one or more in each space, or uniformly as in Fig. 46. The extra stitch is started the same as the foundation stitch. Care must be taken to keep the spacing even, as this adds greatly to the beauty of the finished basket.

Another point to be remembered is to work the smooth side of the pine-needles to the surface of the basket. This can be done by selecting the best ones and inserting them in the coil so that they may be brought to the surface after a stitch has been made to hold them in. Another method is to slip two or more of the best needles under the last stitch, from right to left, pointed end first, pull the needles through to the sheath end, leaving enough at the right of the stitch to hold the needles in until two or three stitches have been made, then cut off the sheath ends close to the stitch.

By taking advantage of this method of surfacing, interesting designs may be worked out in introducing different materials. Grasses, sorghum fodder, pine-needles of another tone or raffia may be worked in as bands around the basket, as broken bands, as vertical

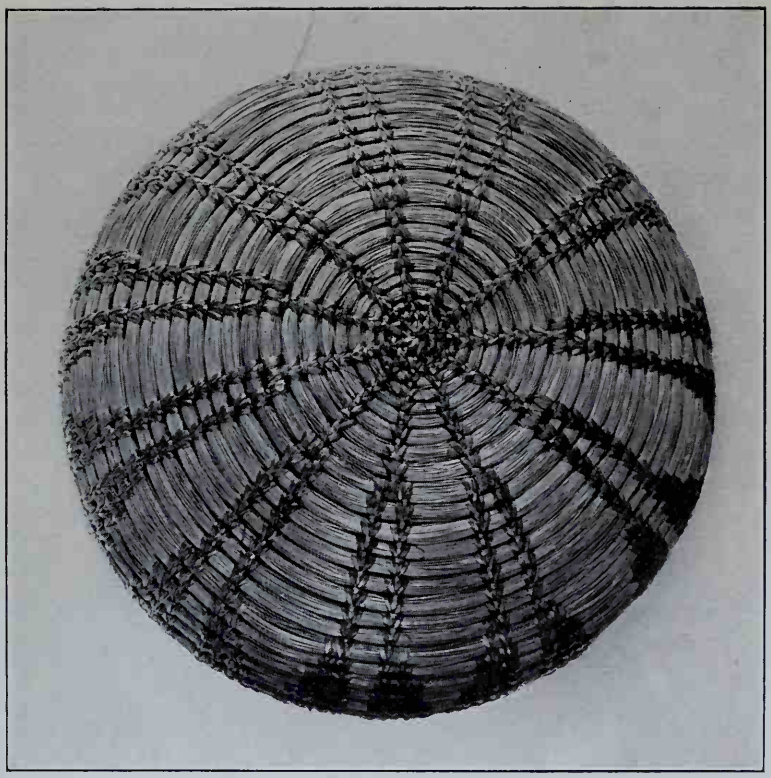

FIG. 46. BOTTOM OF FIG. 45.

stripes, or as spirals radiating from the centre. Remember that in this as in the coil stitch the design must be kept simple. The chief charm of a pine-needle basket lies in the even spacing, the smooth surface, the uniform size of the coil, the firmness of the work, and the form and color.

Piassava Fibre. — In the basket, Figs 45 and 46, made in the arrow stitch, the material used is Piassava, or Piassaba, a coarse fibre yielded by several palms. In South America it is made into coarse but durable ropes; in Europe it is used chiefly for street-brooms. It is also made into all kinds of small brooms and brushes, but as far as the writer knows, it has not been used in the making of baskets of the type shown here.

The color of the fibre is a dark brown, and the texture is ideal for the arrow stitch.

It is not listed among basketry materials but has been sold by horticultural merchants and wholesale dealers in raffia.

There are probably many other interesting fibres and materials still untried in basket-making.

Remember that in making a basket, whatever the materials used, if you have broken none of the laws underlying good form, design, and color harmony, you have come perilously near to creating a masterpiece.

Basketry, weaving and design;
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